



SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
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Los Angeles, CA 90017
T: (213) 236-1800
www.scag.ca.gov

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HYBRID (IN-PERSON & REMOTE PARTICIPATION) *

ENERGY AND ENVIRONMENT COMMITTEE

In-Person & Remote Participation*

Thursday, October 6, 2022

9:30 a.m. – 11:30 a.m.

****Public Participation: The SCAG offices are currently closed to members of the public. Please see next page for detailed instructions on how to participate in the meeting.***

To Attend and Participate on Your Computer:

<https://scag.zoom.us/j/317727062>

To Attend and Participate by Phone:

Call-in Number: 1-669-900-6833

Meeting ID: 317 727 062

PUBLIC ADVISORY

Given the declared state of emergency (pursuant to State of Emergency Proclamation dated March 4, 2020) and local public health directives imposing and recommending social distancing measures due to the threat of COVID-19, and pursuant to Government Code Section 54953(e)(1)(A), the meeting will be held telephonically and electronically.

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Maggie Aguilar at (213) 630-1420 or via email at aguilarm@scag.ca.gov. Agendas & Minutes are also available at: 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) 630-1420. 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.



Instructions for Public Comments

You may submit public comments in two (2) ways:

1. **In Writing:** Submit written comments via email to: EECPublicComment@scag.ca.gov by 5pm on Wednesday, October 5, 2022. You are **not** required to submit public comments in writing or in advance of the meeting; this option is offered as a convenience should you desire not to provide comments in real time as described below.

All written comments received after 5pm on Wednesday, October 5, 2022 will be announced and included as part of the official record of the meeting.

2. **In Real Time:** If participating in real time via Zoom or phone, during the Public Comment Period (Matters Not on the Agenda) or at the time the item on the agenda for which you wish to speak is called, use the “raise hand” function on your computer or *9 by phone and wait for SCAG staff to announce your name/phone number. SCAG staff will unmute your line when it is your turn to speak. Limit oral comments to 3 minutes, or as otherwise directed by the presiding officer. For purpose of providing public comment for items listed on the Consent Calendar, please indicate that you wish to speak when the Consent Calendar is called; items listed on the Consent Calendar will be acted on with one motion and there will be no separate discussion of these items unless a member of the legislative body so requests, in which event, the item will be considered separately.

If unable to connect by Zoom or phone and you wish to make a comment, you may submit written comments via email to: EECPublicComment@scag.ca.gov.

In accordance with SCAG’s Regional Council Policy, Article VI, Section H and California Government Code Section 54957.9, if a SCAG meeting is “willfully interrupted” and the “orderly conduct of the meeting” becomes unfeasible, the presiding officer or the Chair of the legislative body may order the removal of the individuals who are disrupting the meeting.

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



Instructions for Participating in the Meeting

SCAG is providing multiple options to view or participate in the meeting:

To Participate and Provide Verbal Comments on Your Computer

1. Click the following link: <https://scag.zoom.us/j/317727062>
2. If Zoom is not already installed on your computer, click “Download & Run Zoom” on the launch page and press “Run” when prompted by your browser. If Zoom has previously been installed on your computer, please allow a few moments for the application to launch automatically.
3. Select “Join Audio via Computer.”
4. The virtual conference room will open. If you receive a message reading, “Please wait for the host to start this meeting,” simply remain in the room until the meeting begins.
5. During the Public Comment Period, use the “raise hand” function located in the participants’ window and wait for SCAG staff to announce your name. SCAG staff will unmute your line when it is your turn to speak. Limit oral comments to 3 minutes, or as otherwise directed by the presiding officer.

To Listen and Provide Verbal Comments by Phone

1. Call **(669) 900-6833** to access the conference room. Given high call volumes recently experienced by Zoom, please continue dialing until you connect successfully.
2. Enter the **Meeting ID: 317 727 062**, followed by #.
3. Indicate that you are a participant by pressing # to continue.
4. You will hear audio of the meeting in progress. Remain on the line if the meeting has not yet started.
5. During the Public Comment Period, press *9 to add yourself to the queue and wait for SCAG staff to announce your name/phone number. SCAG staff will unmute your line when it is your turn to speak. Limit oral comments to 3 minutes, or as otherwise directed by the presiding officer.

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ENERGY AND ENVIRONMENT COMMITTEE AGENDA

EEC - Energy and Environment Committee *Members – October 2022*

1. **Hon. Deborah Robertson**
EEC Chair, Rialto, RC District 8
2. **Sup. Luis Plancarte**
EEC Vice Chair, Imperial County
3. **Hon. Cindy Allen**
Long Beach, RC District 30
4. **Hon. Ana Beltran**
Westmorland, ICTC
5. **Hon. Daniel Brotman**
Glendale, AVCJPA
6. **Hon. Margaret Clark**
Rosemead, RC District 32
7. **Hon. Robert Copeland**
Signal Hill, GCCOG
8. **Hon. Maria Davila**
South Gate, GCCOG
9. **Hon. Ned Davis**
Westlake Village, LVMCOG
10. **Hon. Rick Denison**
Yucca Valley, SBCTA
11. **Hon. Julian Gold**
Beverly Hills, WSCCOG
12. **Hon. Shari Horne**
Laguna Woods, OCCOG
13. **Hon. Britt Huff**
Rolling Hills Estates, SBCCOG
- 1 . **Hon. Dan Kalmick**
Huntington Beach, OCCOG
- 1 . **Hon. Joe Kalmick**
Seal Beach, RC District 20

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ENERGY AND ENVIRONMENT COMMITTEE AGENDA

- 1 . Hon. Elaine Litster**
Simi Valley, VCOG
- 1 . Hon. Diana Mahmud**
South Pasadena, SGVCOG
- 1 . Hon. Cynthia Moran**
Chino Hills, SBCTA
- . Hon. Oscar Ortiz**
Indio, CVAG
- 2 . Hon. Randall Putz**
Big Bear Lake, RC District 11
- 2 . Hon. Greg Raths**
Mission Viejo, OCCOG
- 2 . Hon. Richard Rollins**
Port Hueneme, VCOG
- 2 . Hon. Jesus Silva**
Fullerton, Pres. Appt. (Member at Large)
- 2 . Hon. Sharon Springer**
Burbank, SFVCOG
- 25. Hon. Connor Traut**
Buena Park, OCCOG
- 26. Hon. John Valdivia**
San Bernardino, SBCTA
- 27. Hon. Colleen Wallace**
Banning, WRCOG
- 28. Hon. Edward Wilson**
Signal Hill, GCCOG

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ENERGY AND ENVIRONMENT COMMITTEE AGENDA

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 - Policy A Meeting Room
Los Angeles, CA 90017
Thursday, October 6, 2022
9:30 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 Deborah Robertson, Chair)*

PUBLIC COMMENT PERIOD (Matters Not on the Agenda)

This is the time for persons to comment on any matter pertinent to SCAG's jurisdiction that is *not* listed on the agenda. Although the committee may briefly respond to statements or questions, under state law, matters presented under this item cannot be discussed or acted upon at this time. Public comment for items listed on the agenda will be taken separately as further described below.

General information for all public comments: Members of the public are encouraged, but not required, to submit written comments by sending an email to: EECPublicComment@scag.ca.gov by 5pm on Wednesday, October 5, 2022. Such comments will be transmitted to members of the legislative body and posted on SCAG's website prior to the meeting. Any writings or documents provided to a majority of the Energy and Environment Committee regarding any item on this agenda (other than writings legally exempt from public disclosure) are available at the Office of the Clerk, located at 900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017 during normal business hours and/or by contacting the office by phone, (213) 630-1420, or email to aguilarm@scag.ca.gov. Written comments received after 5pm on Wednesday, October 5, 2022, will be announced and included as part of the official record of the meeting. Members of the public wishing to verbally address the Energy and Environment Committee in real time during the meeting will be allowed up to a total of 3 minutes to speak on items on the agenda, with the presiding officer retaining discretion to adjust time limits as necessary to ensure efficient and orderly conduct of the meeting. The presiding officer has the discretion to equally reduce the time limit of all speakers based upon the number of comments received. If you desire to speak on an item listed on the agenda, please wait for the chair to call the item and then indicate your interest in offering public comment by either using the "raise hand" function on your computer or pressing *9 on your telephone. For purpose of providing public comment for items listed on the Consent Calendar (if there is a Consent Calendar), please indicate that you wish to speak when the Consent Calendar is called; items listed on the Consent Calendar will be acted upon with one motion and there will be no separate discussion of these items unless a member of the legislative body so requests, in which event, the item will be considered separately.



REVIEW AND PRIORITIZE AGENDA ITEMS

CONSENT CALENDAR

Approval Items

1. Minutes of the Meeting – September 1, 2022 PPG. 8

Receive and File

2. Regional Resilience Framework PPG. 17

ACTION ITEMS

3. Request to Release Connect SoCal 2024 PEIR Notice of Preparation 10 Mins. PPG. 19
(Karen Calderon, Senior Regional Planner)

RECOMMENDED ACTION:

Authorize the release of the Notice of Preparation of a Draft Program Environmental Impact Report for Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy) to initiate a 30-day public review and comment period, beginning October 17, 2022 and ending November 16, 2022, and direct staff to carry out administrative tasks for the public release.

4. SCAG Water Action Resolution 15 Mins. PPG. 33
(Kim Clark, Program Manager II)

RECOMMENDED ACTION FOR EEC:

That the Energy and Environment Committee (EEC) recommend the Regional Council (RC) adopt a Water Action Resolution of the Southern California Association of Governments (No. 22-647-3), which the resolution affirms a drought and water shortage emergency in the SCAG Region and calls on local and regional partners to join together to reduce water use; improve water conservation, reuse, and efficiency; and enhance water systems health and resilience.

INFORMATION ITEMS

5. Southern California Energy Outlook, Transition to Renewable Energy 45 Mins. PPG. 52
(Alison Linder, Senior Planner, SCAG; Yuliya Schmidt, Advisor to Commissioner Rechtschaffen California Public Utilities Commission (CPUC); Aleecia Gutierrez, California Energy Commission (CEC); Zanku Armenian, Director of Public Affairs for Southern California Edison (SCE); and Mike Todd, Principal Development Engineer & Facilities and Safety Coordinator, Center for Environmental Research and Technology (CERT), University of California Riverside (UCR))



ENERGY AND ENVIRONMENT COMMITTEE AGENDA

6. Lithium-Ion Battery Reuse, Recycling and Safe Disposal - Findings from the CA Lithium-Ion Battery Recycling Advisory Group PPG. 83
20 Mins.

(Alisa Kendal, Professor, Department of Civil and Environmental Engineering, UC Davis)

CHAIR'S REPORT

(The Honorable Deborah Robertson, Chair)

STAFF REPORT

(Rachel Wagner, Regional Affairs Officer, SCAG Staff)

FUTURE AGENDA ITEMS

ANNOUNCEMENTS

ADJOURNMENT



Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 - Policy A Meeting Room
Los Angeles, CA 90017
October 6, 2022

ENERGY AND ENVIRONMENT COMMITTEE
MINUTES OF THE MEETING
THURSDAY, SEPTEMBER 1, 2022

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 AT: <http://scag.iqm2.com/Citizens/>.

The Energy and Environment Committee (EEC) of the Southern California Association of Governments (SCAG) held its regular meeting both in person and virtually (telephonically and electronically), given the declared state of emergency (pursuant to State of Emergency Proclamation dated March 4, 2020) and local public health directives imposing and recommending social distancing measures due to the threat of COVID-19, and pursuant to Government Code Section 54953(e)(1)(A). A quorum was present.

Members Present

Hon. Deborah Robertson, Rialto (Chair)	District 8
Sup. Luis Plancarte (Vice Chair)	Imperial County
Hon. Cindy Allen, Long Beach	District 30
Hon. Margaret Clark, Rosemead	SGVCOG
Hon. Robert Copeland, Signal Hill	GCCOG
Hon. Shari Horne, Laguna Woods	OCCOG
Hon. Britt Huff, Rolling Hills Estates	SBCCOG
Hon. Dan Kalmick, Huntington Beach	OCCOG
Hon. Joe Kalmick, Seal Beach	District 20
Hon. Elaine Litster, Simi Valley	VCOG
Hon. Diana Mahmud, South Pasadena	SGVCOG
Hon. Cynthia Moran, Chino Hills	SBCTA
Hon. Randall Putz, Big Bear Lake	District 11
Hon. Greg Raths, Mission Viejo	OCCOG
Hon. Richard Rollins, Port Hueneme	VCOG
Hon. Connor Traut, Buena Park	OCCOG
Hon. John Valdivia, San Bernardino	SBCTA
Hon. Colleen Wallace, Banning	WRCOG



Members Not Present

Hon. Ana Beltran, Westmoreland	ICTC
Hon. Daniel Brotman, Glendale	AVCJPA
Hon. Maria Davila, South Gate	GCCOG
Hon. Ned Davis, Westlake Village	LVMCOG
Hon. Rick Denison, Yucca Valley	SBCTA
Hon. Julian Gold, Beverly Hills	WSCCOG
Hon. Oscar Ortiz, Indio	CVAG
Hon. Jesus Silva, Fullerton	President’s Appointment
Hon. Sharon Springer, Burbank	SFVCOG
Hon. Edward H.J. Wilson, Signal Hill	GCCOG

CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Chair Deborah Robertson called the meeting to order at 9:35 a.m. Britt Huff, led the Pledge of Allegiance. Staff confirmed a quorum was present.

PUBLIC COMMENT PERIOD

Chair Deborah Robertson opened the public comment period and provided detailed instructions on how to provide public comments. She noted that this was the time for members of the public to offer comment for matters that are within SCAG’s jurisdiction but are not listed on the agenda.

She reminded the public to submit comments via email to EECPublicComment@scag.ca.gov. She noted that public comments received via email after 5pm on Wednesday, August 31, 2022, would be announced and included as part of the official record of the meeting.

SCAG staff noted there were no written public comments received by email before or after the 5pm deadline on Wednesday, August 31, 2022.

Seeing no public comment speakers, Chair Robertson closed the public comment period for matters not listed on the agenda.

REVIEW AND PRIORITIZE AGENDA ITEMS

There were no requests to prioritize agenda items.

CONSENT CALENDAR

Policy Committee member Elaine Litster, Simi Valley, VCOG made a correction noting that the July,

meeting minutes showed she was not in attendance, but she was present. She also noted that on the first vote, it listed 16 members voting when it should be 18.

Chair Robertson opened the Public Comment Period.

Seeing no public comment speakers, Chair Robertson closed the Public Comment Period.

Approval Items

1. Minutes of the Meeting – July 7, 2022
2. Connect SoCal CEQA Addendum No. 3 to Programmatic Environmental Impact Report (State Clearinghouse No. 2019011061)

Receive and File

3. CEQA Initiation for the Connect SoCal 2024 Program Environmental Impact Report

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

AYES: Allen, Clark, Copeland, Horne, Huff, D. Kalmick, J. Kalmick, Litster, Mahmud, Moran, Plancarte, Putz, Raths, Robertson, Rollins, Traut, Valdivia, and Wallace (18)

NOES: None (0)

ABSTAINS: None (0)

ACTION ITEMS

4. Transportation Conformity Determinations of Proposed Final 2023 Federal Transportation Improvement Program (FTIP) and Proposed Final 2020 Connect SoCal Amendment #2

Rongsheng Luo, Program Manager of Environmental Analysis, reported that at the last EEC meeting in July, EEC had approved the staff recommendation for Regional Council authorizing the release of the conformity analysis of the draft 2023 FTIP and the draft 2020 Connect SoCal Amendment No. 2, for public review. Subsequently, as authorized by the Regional Council, the conformity analysis, was released for 30 days for public review. The 30-day period concluded on August 8, 2022 and SCAG received a total of 24 comments for the Draft FTIP and no comments were received for the draft

2020 Connect SoCal Amendment No. 2. He stated the comments on the 2023 FTIP were generally technical in nature and did not raise issues that affected the associated conformity analysis. He stated that as a result, no significant changes had been made to the proposed final FTIP and 2020 and the Connect SoCal Amendment #2. He reported that SCAG staff had determined that the proposed final 2023 FTIP and the proposed final 2020 Connect SoCal Amendment #2 continued to meet all federal transportation conformity requirements.

Chair Robertson opened the Public Comment Period.

Seeing no public comment speakers, Chair Robertson closed the Public Comment Period.

A MOTION was made (Wallace) to recommend that the Regional Council approve the transportation conformity determinations of the proposed Final 2023 FTIP and the proposed Final 2020 Connect SoCal Amendment #2; and direct staff to submit to the Federal Highway Administration and Federal Transit Administration for approvals at its October 6, 2022 meeting. Motion was SECONDED (Huff) and passed by the following votes:

AYES: Allen, Clark, Copeland, Horne, Huff, D. Kalmick, J. Kalmick, Litster, Mahmud, Moran, Plancarte, Putz, Rath, Robertson, Rollins, Traut, Valdivia, and Wallace (18)

NOES: None (0)

ABSTAINS: None (0)

5. SCAG Water Action Resolution

Chair Robertson opened the Public Comment Period.

The following members of the public provided comments regarding revisions to the resolution to be more inclusive of all options including language to enhance the supply opportunities, as well as creating an advisory group, and also language on storage:

- Ray Baca
- Denise Kniter
- Marci Stanage
- Richard Lambros
- Charles Wilson
- Lucy Dunn
- Robert Sausedo
- Martin Ludlow

Seeing no further public comment, Chair Robertson closed the Public Comment Period.

Sarah Jepson, SCAG Planning Director thanked everyone for public comments. She stated they were bringing this [item] forward for discussion and Consideration of Action by the committee. She stated it would go before the Regional Council if acted on that day, the following month [October 2022]. She stated they would have the opportunity to incorporate any of the feedback provided that day and would also be happy to bring it back to that particular committee if they wanted to look at it before it went to the [Regional Council]. She reported Chair Robertson wanted to ensure water was part of the conversation and a bigger piece on how they did integrated planning at SCAG as they thought about the development of more sustainable communities. She reported that in the last several months, they had conversations about climate change and the way it is challenging water supplies. She stated this was a starting point for them to outline how they understand some of the challenges in the region and how SCAG can play a stronger partnership role in ensuring a more sustainable water supply in the future. She then handed the presentation off to Kimberly Clark, Program Manager who would talk about the background on the resolution and some of the actions they were proposing.

Kimberly Clark, Program Manager, provided a presentation on the proposed Water Action Resolution, which affirmed a drought and water shortage emergency in the SCAG region and called on local and regional partners to join together to reduce water use, improve water conservation reuse and efficiency and enhance water systems health and resilience. She noted this item was marked for Action on the agenda but not on the staff report. She clarified this was an action item.

Clark responded to comments and questions posed by the members of the committee concerning the groundwater recharge strategy, language in the resolution expanding emphasis on water acquisition and information on costs associated with this item.

Chair Robertson stated with all the comments that had been presented, she moved the item and asked Vice Chair Plancarte to second it.

Policy Committee Member, Elaine Litster, Simi Valley VCOG, asked for a point of clarification. She asked if they voted for the resolution as stated, a yes vote, would they be able to incorporate those changes or if they were voting to bring it back with some of the changed language as discussed.

Planning Director Jepson stated she could summarize what they had heard and what they would try to capture in the revisions in the resolution. She reiterated the point on cost-effective and efficiency, making sure they were integrating that point, in several places, including replacing the word of "alternatives." She stated they would look at opportunities to incorporate an "all of the above" type of approach and would look for greater opportunities to elevate the work of partners around education and advocacy. She stated one of the things she found important was they were a long-range regional transportation planning agency and what they were seeing in the motion, was

focused on their role in supporting local land use planning but they heard them saying they wanted a broader approach, and they could look at ways they could rely on and elevate the work of partners. She stated that given the conversation, they would be happy to put those into the resolution and bring it back to EEC so that they could adopt it before it went to [the Regional Council] or if they were happy with the way she had summarized it, they could move forward and try to incorporate those comments based off their action and bring it forth to [the Regional Council] the following month.

Chair Robertson asked to include supporting partners in any legislative directions they may need to be in support of. She recommended that they include all the added items and bring it back to the EEC for further review and ensuring they were as inclusive as they could be.

Deputy Legal Counsel Jeffrey Elder, stated they should do a substitute motion because they already had the first motion on the floor.

Chair Robertson and Vice Chair Plancarte withdrew their original motion.

A MOTION was made (Litster) to recommend that the resolution be modified and incorporate the elements as discussed and reviewed at their [EEC] following meeting. Motion was SECONDED (Mahmud) and passed by the following votes:

AYES: Allen, Clark, Copeland, Horne, Huff, D. Kalmick, J. Kalmick, Litster, Mahmud, Moran, Plancarte, Putz, Rath, Robertson, Rollins, Traut, and Wallace (17)

NOES: None (0)

ABSTAINS: None (0)

INFORMATION ITEMS

6. Equity Analysis Update (formerly Environmental Justice Analysis) - Performance Measures

Chair Robertson opened the Public Comment Period.

Seeing no public comment speakers, Chair Robertson closed the Public Comment Period.

Anita Au, Senior Regional Planner, provided a preview of staff's proposed updates to Connect SoCal 2024, Equity Analysis Performance Measures.

Au responded to comments and questions posed by the members of the committee concerning displacement, gentrification of minority communities and ways they could reflect population migration in the region.

7. Green Region Resource Areas Methodology for SCAG's Local Data Exchange (LDX)

Chair Robertson opened the Public Comment Period.

Seeing no public comment speakers, Chair Robertson closed the Public Comment Period.

Kimberly Clark, Program Manager, provided a presentation on SCAG's approach for fulfilling SB375 requirement that the 2024 Connect SoCal Plan incorporate considerations for resource areas in the development of the sustainable communities strategy.

8. Energy and Environment Committee (EEC) 12 Month Look Ahead

Chair Robertson opened the Public Comment Period.

Seeing no public comment speakers, Chair Robertson closed the Public Comment Period.

Sarah Jepson, Planning Director, provided a brief presentation on the look ahead on agenda items, they were planning to bring forward to the Energy and Environment Committee this year. She noted it was subject to change.

CHAIR'S REPORT

Chair Robertson reminded members of the survey that went out and asked they fill it out. Chair Robertson also reminded members of the U.S. Conference of Mayors taking place October 13-14, in Ontario, CA.

STAFF REPORT

Rachel Wagner, Regional Affairs Officer, reported that SCAG was launching "Money Monday's" where they highlight open grant opportunities offered in the region. She reported this could be found on their shared grant opportunities website as well. Wagner also highlighted a few upcoming SCAG sponsored events or events SCAG will be attending in the month of September. She reported SCAG in partnership with the USC Sol Price School of Public Policy would host the virtual 33rd Annual Demographic Workshop on Wednesday, September 14 and Wednesday, September 21. She also announced the Annual League of Cities Conference would be taking place September 7-9, 2022, and also on September 7, the AAA Clean Vehicle Summit and Car Show would take place. Lastly, the



BizFed 8th Annual Freshman Policy Makers Reception would take place on September 22.

FUTURE AGENDA ITEMS

There were no future agenda items.

ANNOUNCEMENTS

There were no announcements.

ADJOURNMENT

There being no further business, Chair Robertson adjourned the Energy and Environment Committee meeting at 11:39 a.m. in honor of First Vice President Carmen Ramirez.

[MINUTES ARE UNOFFICIAL UNTIL APPROVED BY THE EEC]

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ENERGY AND ENVIRONMENT COMMITTEE ATTENDANCE REPORT

2022-23

MEMBERS	Representing	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May	Total Mtgs Attended To Date
Allen, Cindy	Long Beach, District 30	1	1		1									3
Beltran, Ana	Westmoreland, ICTC	0	0		0									0
Brotman, Daniel	Glendale, AVCJPA	1	1		0									2
Clark, Margaret	Rosemead, SGVCOG	1	1		1									3
Copeland, Robert	Signal Hill, GCCOG	1	1		1									3
Davila, Maria	South Gate, GCCOG	0	0	D	0									0
Davis, Ned	Westlake Village, LVMCOG	1	0		0									1
Denison, Rick	Yucca Valley, SCBTA	1	0		0									1
Gold, Julian	Beverly Hills, WSCCOG	1	1		0									2
Horne, Shari	Laguna Woods, OCCOG	1	1		1									3
Huff, Britt	Rolling Hills Estates, SCBCOG	1	1	A	1									3
Kalmick, Dan	Huntington Beach, OCCOG	1	1		1									3
Kalmick, Joe	Seal Beach, District 20	1	1		1									3
Litster, Elaine	Simi Valley, VCOG	0	1		1									2
Mahmud, Diana	So. Pasadena, SGVCOG	1	1	R	1									3
Moran, Cynthia	Chino Hills, SBCTA	1	0		1									2
Ortiz, Oscar	Indio, CVAG	0	0		0									0
Plancarte, Luis	Imperial County	1	1		1									3
Putz, Randall	Big Bear Lake, District 11	1	0		1									2
Raths, Greg	Mission Viejo, OCCOG	0	1		1									2
Robertson, Deborah	Rialto, RC District 8	1	1		1									3
Rollins, Richard	Port Hueneme, VCOG	0	1		1									2
Springer, Sharon	Burbank, SFVCOG	1	1		0									2
Traut, Connor	Buena Park, OCCOG	1	1		1									3
Valdivia, John	San Bernardino, SBCCOG	1	1		1									3
Wallace, Colleen	Banning, WRCOG	1	1		1									3
Wilson, Edward H.J.	Signal Hill, GCCOG	0	0		0									0

Attachment: EEC Attendance Sheet 2022-23 (Minutes of the Meeting - September 1, 2022)



AGENDA ITEM 2 REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 - Policy A Meeting Room
Los Angeles, CA 90017
October 6, 2022

To: Energy & Environment Committee (EEC)

EXECUTIVE DIRECTOR'S
APPROVAL

From: Lorianne Esturas, Assistant Planner
(213) 236-1853, esturas@scag.ca.gov

Subject: Regional Resilience Framework

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:

In January 2021, SCAG's Regional Council unanimously adopted Resolution 21-628-1 to promote climate adaptation, mitigation and resilience across Southern California's six-county region that is home to nearly 19 million people. The Regional Council resolved to develop a Regional Resilience Framework (RRF) to help the region plan and prepare for a changing climate, as well as potential near- and long-term disruptions to Southern California, such as earthquakes, extreme weather, drought, wildfires, pandemics and economic shocks. The RRF will help SCAG to better anticipate a wide range of potential futures and strengthen the resilience and preparedness of the region. In June 2022, SCAG kicked off the Regional Resilience Framework (RRF) project and is in the early stages of outreach and engagement with local stakeholders. This report provides an overview of the RRF, key deliverables, and alignment with SCAG's next Regional Transportation Plan/Sustainable Communities Strategy, Connect SoCal 2024.

BACKGROUND:

As part of Connect SoCal, SCAG committed to exploring new challenges in the region to help move Southern California towards a more sustainable future. One of these challenges involves understanding how disruptions, such as acute shocks and chronic stressors, could impact the resilience of the SCAG region. Furthermore, SCAG's unanimously adopted Climate Change Action Resolution (Resolution 21-628-1), calls on SCAG to pursue a number of activities to address climate change in order to strengthen regional resilience, such as development of a Regional Resilience Framework (RRF) to "help the region plan and prepare for a changing climate, as well as potential near- and long-term disruptions to Southern California."

On June 15, 2022, SCAG kicked off the Regional Resilience Framework project to explore pressing issues and potential near- and long-term disruptions to Southern California, such as extreme weather, drought, wildfires, pandemics, earthquakes and economic shocks. The Regional Resilience Framework will consider the potential degree of disruption to the region that could result from land based, atmospheric, public health and geologic natural hazards. The project will feature:

- Interviews with community-based organizations and tribal nations to understand concerns related to resilience in local communities
- Resilience Advisory Committee consisting of practitioners from local jurisdictions, subregional and regional partners, county transportation commissions, utilities, etc.
- Resilience Toolkit for local agencies to integrate best practices in day-to-day and long-range planning activities
- Matrix of regional pinch-points (i.e., “shocks” and “stressors”, as defined below) that may impact the current and future resilience of local communities
- Exploratory scenario analysis to examine potential futures for Southern California
- Engagement with SCAG subregional and regional stakeholders, such as council of governments, SCAG policy committees, Regional Council, etc.

The Regional Resilience Framework is anticipated to be completed by late 2023.

FISCAL IMPACT:

Work for this effort is funded in SCAG’s Fiscal Year 2022-2023 Overall Work Program (OWP) under project 290.4896.01 (Regional Resiliency Analysis).



AGENDA ITEM 3 REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 - Policy A Meeting Room
Los Angeles, CA 90017
October 6, 2022

To: Community Economic & Human Development Committee (CEHD)
Energy & Environment Committee (EEC)
Transportation Committee (TC)
Regional Council (RC)
From: Karen Calderon, Senior Regional Planner
(213) 236-1983, calderon@scag.ca.gov
Subject: Request to Release Connect SoCal 2024 PEIR Notice of Preparation

EXECUTIVE DIRECTOR'S
APPROVAL

RECOMMENDED ACTION FOR EEC:

Authorize the release of the Notice of Preparation of a Draft Program Environmental Impact Report for Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy) to initiate a 30-day public review and comment period, beginning October 17, 2022 and ending November 16, 2022, and direct staff to carry out administrative tasks for the public release.

RECOMMENDED ACTION FOR CEHD, TC, AND RC:

Receive and File.

STRATEGIC PLAN:

This item supports the following Strategic Plan Goal 2: Advance Southern California’s policy interests and planning priorities through regional, statewide, and national engagement and advocacy.

EXECUTIVE SUMMARY:

At the March 3 and September 1, 2022 EEC meetings, SCAG staff informed the EEC that SCAG, as the Lead Agency, is responsible for preparing a Program Environmental Impact Report (PEIR) for the upcoming proposed 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), referred to alternatively as “Connect SoCal 2024”, “Plan”, or “Project”, and that staff would be preparing a Notice of Preparation (NOP) of a PEIR to formally kick off the PEIR process. SCAG staff has prepared a NOP (see Attachment 1) in accordance with applicable provisions of the California Environmental Quality Act (CEQA). SCAG staff requests that the EEC authorize the release of the NOP for a required 30-day public review and comment period beginning on October 17, 2022 and ending on November 16, 2022. Following the release of the NOP, SCAG will host two virtual public scoping meetings, each providing the same information, on November 9, 2022 at 6:00 p.m. and November 10, 2022 at 10:00 a.m. After close of the public review and comment period, SCAG staff will report back to the EEC regarding comments received.

BACKGROUND:

Pursuant to federal and state planning requirements, SCAG updates and adopts a long-range RTP every four years. SCAG's last Plan was adopted in 2020 and an updated Plan is anticipated to be adopted by April 2024. The RTP emphasizes the development and preservation of the region's transportation system. For a transportation project to become eligible for federal and state funding, it must be included in the financially-constrained portion of the RTP. In addition, per state law, the Plan must include a Sustainable Communities Strategy (SCS) that demonstrates compliance with California Air Resources Board greenhouse gas (GHG) emission reduction targets from cars and light duty trucks.

CEQA, codified at Public Resource Code (PRC) Section 21000 et seq., and its implementing regulations, CEQA Guidelines, found at California Code Regulations Title 14, Chapter 3, Section 15000 et seq., require SCAG as the Lead Agency to evaluate the potential environmental impacts for any discretionary governmental action and disclose the evaluation in a CEQA document that is appropriate for the proposed governmental action (CEQA Guidelines Section 15002(b)). Based on SCAG staff's preliminary evaluation of previous RTP/SCSs and associated PEIRs, levels of significance for environmental impacts from the upcoming proposed Connect SoCal 2024 are anticipated to be similar in magnitude as those for the previous Plans. Therefore, an EIR is found to be the appropriate CEQA document for Connect SoCal 2024. Connect SoCal 2024 is a regional planning document updated every four years and will update the 2020 RTP/SCS, Connect SoCal, as amended. Additionally, given the regional level of analysis provided in a RTP/SCS for a large geographic area with a minimum 20-year planning horizon, a Program EIR (PEIR) is the appropriate type of EIR for Connect SoCal 2024.

A PEIR is a "first-tier" CEQA document designed to consider "broad policy alternatives and program wide mitigation measures" (CEQA Guidelines Section 15168). The programmatic environmental impact analysis for the Connect SoCal 2024 PEIR will evaluate potential environmental effects consisting of direct and indirect effects, growth-inducing impacts, and cumulative impacts resulting from the Plan, and will include feasible mitigation measures and a range of reasonable alternatives to the Plan, including a No Project Alternative, to avoid or reduce any identified potentially significant adverse environmental effects of the Plan. As a first-tier document, the PEIR may serve as a foundation for subsequent, project or site-specific environmental review documents (including Addenda, Supplemental EIRs, Subsequent EIRs) that may be conducted by implementing agencies serving as CEQA lead agencies for later, individual transportation and development projects with narrower scope in the region (CEQA Guidelines Section 15385).

CEQA BASIS FOR A NOTICE OF PREPARATION:

SCAG staff has completed the preparation of a NOP of a Draft PEIR for Connect SoCal 2024 pursuant to PRC Section 21080.4 and CEQA Guidelines Sections 15082 and 15375. Based on the information

provided in the Background Section above and discussed in the NOP, SCAG staff has determined that an Initial Study is not required to be prepared pursuant to CEQA Guidelines Section 15060(d). The NOP contains a project description of the upcoming proposed Connect SoCal 2024, its location, and probable environmental effects of Connect SoCal 2024, in order to enable interested agencies, organizations, and individuals (collectively referred to as the public) to meaningfully review and provide comments and input on the proposed scope and content of the Draft PEIR.

SCHEDULE:

Key milestones and expected dates for the development of Connect SoCal 2024 PEIR are listed below in Table 1: Key Milestones for the Connect SoCal 2024 PEIR.

Table 1: Key Milestones for the Connect SoCal 2024 PEIR

Milestones	Date (Expected)
Release NOP of a Draft PEIR for Public Review and Comments	October 17, 2022 (this EEC meeting)
Public Scoping Meetings	November 9, 2022 at 6:00 p.m. and November 10, 2022 at 10:00 a.m.
Release of Draft PEIR for Public Review and Comments	Within 30 days after Draft Connect SoCal 2024 Release
Draft PEIR Public Workshop	Within 30 days after Draft PEIR Release
Draft PEIR Public Review and Comment Period Closes	At least 45 days after Draft PEIR Release
Certification for the Final PEIR for the Final Connect SoCal 2024	April 2024

Key milestones and expected dates for the EEC review of the development of Connect SoCal 2024 PEIR are listed below in Table 2: Key Milestones for EEC Action on the Connect SoCal 2024 PEIR.

Table 2: Key Milestones for EEC Action on the Connect SoCal 2024 PEIR

Milestones	Date (Expected)
EEC Authorization to Release the NOP for Public Review and Comments	October 17, 2022 (this EEC meeting)
EEC Review of the Proposed Draft PEIR for the Proposed Draft Connect SoCal 2024 and Consideration to Recommend that RC Release the Proposed Draft PEIR for Public Review and Comments	Fall 2023
EEC Review of the Proposed Final PEIR for the Proposed Final Connect SoCal 2024 and Consideration to Recommend that RC Certify the	March 2024



Proposed Final PEIR	
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Staff will provide periodic status updates to the EEC as development of the Connect SoCal 2024 PEIR progresses.

FISCAL IMPACT:

Work associated with this item is included in the current Fiscal Year 2022/23 Overall Work Program (22-020.0161.04: Environmental Compliance, Coordination & Outreach).

ATTACHMENT(S):

1. Notice of Preparation of a Draft PEIR for Connect SoCal 2024



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

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Immediate Past President
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Community, Economic &
Human Development
Frank Yokoyama, Cerritos

Energy & Environment
Deborah Robertson, Rialto

Transportation
Ray Marquez, Chino Hills

NOTICE OF PREPARATION

TO: Interested Agencies, Organizations, and Individuals

SUBJECT: Notice of Preparation of a Draft Program Environmental Impact Report for Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy) (State Clearinghouse No. TBD)

DATE: October 17, 2022

LEAD AGENCY: Southern California Association of Governments
900 Wilshire Blvd, Suite 1700
Los Angeles, California 90017

The Southern California Association of Governments (SCAG), as Lead Agency, is publishing this Notice of Preparation (NOP) to prepare a Draft Program Environmental Impact Report (Draft PEIR) in accordance with the California Environmental Quality Act (CEQA) for the proposed 2024-2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), referred to alternatively as “2024 RTP/SCS”, “Connect SoCal 2024”, “Plan”, or “Project”.

To ensure full consideration of environmental issues with potential significant adverse impacts when preparing the Draft PEIR, **all written comments on the NOP must be received within thirty (30) days of the start of the required 30-day public review and comment period, which begins October 17, 2022, and ends November 16, 2022 at 5:00 PM (PST).**

Two (2) virtual public scoping meetings for the NOP, each providing the same information, will be held on **Wednesday, November 9, 2022, from 6:00 PM to 8:00 PM**, and **Thursday, November 10, 2022, from 10:00 AM to 12:00 PM**. The meetings will be held in an online format using Zoom. You may join, view, and participate in the meetings by using the Zoom application, by your web browser, or by phone. Information for the webcast is provided below:

<https://scag.zoom.us/j/81023287939>

Dial by location: +1 669 900 6833 US Toll or +1 669 444 9171 US Toll

Meeting ID: 810 2328 7939

Please send your comments on the NOP to Ms. Karen Calderon, Senior Regional Planner, either electronically to: ConnectSoCalPEIR@scag.ca.gov or by mail to the address shown above. If you wish to be placed on the mailing list to receive CEQA notices regarding the PEIR for the Plan, need additional information, or require special accommodations or translation services for a scoping meeting, please email Ms. Karen Calderon at least 72 hours prior to the scoping meeting or call (213) 236-1983 so that SCAG has sufficient time to make arrangements.

INTRODUCTION

CEQA and its implementing regulations (CEQA Guidelines) require SCAG as the Lead Agency to evaluate the potential environmental impacts for any discretionary governmental action and disclose the evaluation in a CEQA document that is appropriate for the proposed governmental action. Connect SoCal 2024 is a regional planning document updated every four years (see further discussion below) and will update the 2020 RTP/SCS, as amended. Given the regional level of analysis provided in a RTP/SCS for a large geographic area with a minimum 20-year planning horizon, a Program EIR (PEIR) is the appropriate type of EIR for Connect SoCal 2024.

A PEIR is a “first-tier” CEQA document designed to consider “broad policy alternatives and program wide mitigation measures” (CEQA Guidelines Section 15168). The programmatic environmental impact analysis for the Connect SoCal 2024 PEIR will evaluate potential environmental effects consisting of direct and indirect effects, growth-inducing impacts, and cumulative impacts resulting from the Plan, and will include feasible mitigation measures and a range of reasonable alternatives to the Plan, including a No Project Alternative, to avoid or reduce any identified potentially significant adverse environmental effects of the Plan. As a first-tier document, the PEIR may serve as a foundation for subsequent, site-specific environmental review documents (including EIRs, Supplemental EIRs, Subsequent EIRs, and Addenda) that may be conducted by implementing agencies serving as CEQA lead agencies for subsequent individual transportation and development projects in the region (CEQA Guidelines Section 15385).

This NOP is intended to serve the following purposes: (1) to notify responsible agencies, interested agencies, organizations, and individuals that SCAG is preparing the Draft PEIR which will assess the potential adverse environmental impacts that may result from implementing the proposed Plan; and (2) to provide information on the proposed Plan and allow the public the opportunity to review and comment on the scope and content of the environmental information to be considered and evaluated in the Draft PEIR. Written comments regarding the scope and contents of the environmental impact analysis in the Draft PEIR received during the required 30-day NOP review period will be considered to refine the scope and content of the Draft PEIR, as appropriate and included in an appendix of the Draft PEIR.

The NOP is filed for posting with county clerks of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties and is published in local newspapers, including ethnic press that address the large geographic reach and diverse population within the six-county SCAG region. The NOP is also available for public review from (1) SCAG’s website at: <https://scag.ca.gov/peir>; (2) Governor’s Office of Planning and Research – State Clearinghouse website at: <https://ceqanet.opr.ca.gov/>; and (3) [the county clerk’s website for the six counties in the SCAG region](#).

PROJECT LOCATION AND BACKGROUND

Project Location

SCAG is the federally designated Metropolitan Planning Organization (MPO) under Title 23, United States Code (U.S.C.) 134(d)(1). The SCAG region consists of six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura), and 191 cities (Figure 1, *SCAG Region*). To the north of the SCAG region are the counties of Kern and Inyo; to the east is state of Nevada and state of Arizona; to the south is the county of San Diego; and to the northwest is the Pacific Ocean. The SCAG region also consists of 15 subregional entities that serve as partners in the regional planning process. (Figure 2, *SCAG Subregions*).

SCAG is one of 18 MPOs in the State of California. The total area of the SCAG region is approximately 38,000 square miles. The region includes the county with the largest land area in the nation, San Bernardino County, as well as the county with the highest population in the nation, Los Angeles County. The SCAG region is home to approximately 18.8 million people, or 48 percent of California’s population, according to the 2020 Census, representing the largest and most diverse region in the country.



Figure 1: SCAG Region

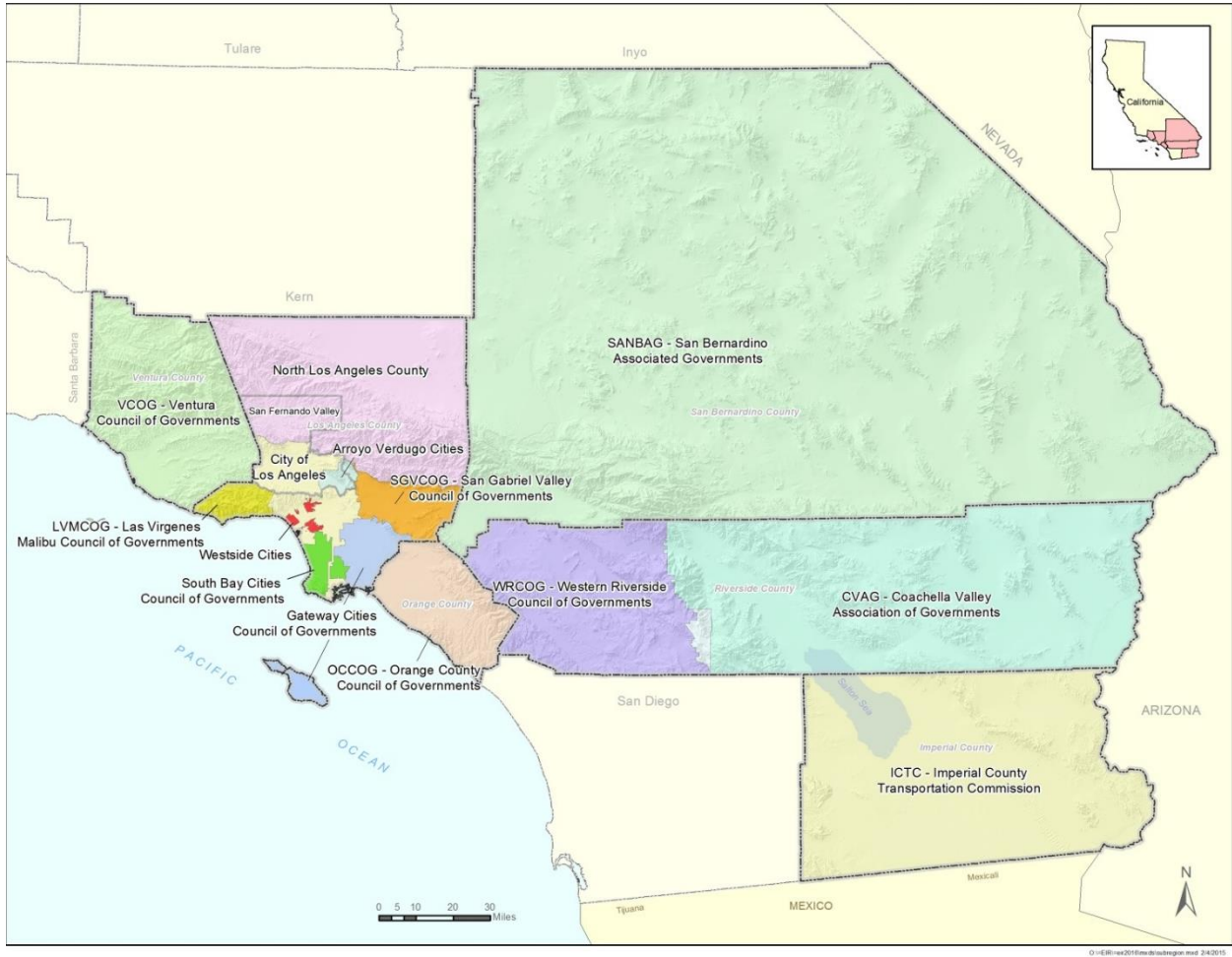


Figure 2: SCAG Subregions

SCAG Roles and Responsibilities

In addition to federal designation as a MPO, SCAG is designated under California state law as the Multicounty Designated Transportation Planning Agency and Council of Governments for the six-county region. Founded in 1965, SCAG is a Joint Powers Authority, established as a voluntary association of local governments and agencies.

SCAG serves as the regional forum for cooperative decision making by local government elected officials and its primary responsibilities in fulfillment of federal and state requirements include the development of the RTP/SCS; the Federal Transportation Improvement Program (FTIP); the annual Overall Work Program; and transportation-related portions of local air quality management plans. SCAG’s other major functions include determining the RTPs and programs are in conformity with state air quality plans; preparation of a Regional Housing Needs Assessment; and intergovernmental review of regionally significant projects.

PROJECT DESCRIPTION

Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy)

Pursuant to federal and state planning requirements, SCAG updates and adopts a long-range RTP every four years. SCAG's last Plan was approved for transportation conformity purposes in May 2020 and adopted in its entirety in September 2020 and an updated Plan is anticipated to be adopted by April 2024.

Connect SoCal 2024 will be a long-range visioning plan that balances future mobility and housing needs with economic and environmental goals. Connect SoCal 2024 represents the vision for Southern California's future through 2050, including policies, strategies, and projects. The Plan details how the region will address its transportation and land use challenges and leverage opportunities in order to support attainment of applicable federal ambient air quality standards and achieve state's greenhouse gas (GHG) emissions reduction targets. Connect SoCal 2024 will build from the policy directions established in Connect SoCal 2020 as well as more recent policy directions from SCAG's Regional Council to reflect emerging issues such as equity, resilience, and the economy. It is important to note that SCAG does not have authority to implement individual transportation projects in the RTP, nor does the SCS supersede the land use authority of cities and counties in the region. Specific projects and policies will be implemented by local jurisdictions, state agencies, and other agencies, such as County Transportation Commissions (CTCs). SCAG has already initiated the development of Connect SoCal 2024 and is working closely with all 197 local jurisdictions to collect land use data and determine a forecasted regional development pattern. SCAG is also working with CTCs to compile a regional project list that will build upon the list identified in the Connect SoCal 2020, as amended.

Sustainable Communities Strategies

In accordance with the Sustainable Communities and Climate Protection Act of 2008, or SB 375 (Steinberg) and codified in California Government Code Section 65080(b)(2)(B), the Plan will include a SCS which "set[s] forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies" will reduce GHG emissions from passenger vehicles (automobiles and light-duty trucks).

Pursuant to SB 375, SCAG's SCS is required to meet GHG emissions reduction target of 19 percent per capita by 2035 compared to 2005 emission levels, as set by the California Air Resources Board (ARB). According to Section 65080(b)(2)(B) of the California Government Code, the SCS shall:

- Identify the general location of land uses, residential densities and building intensities in the region;
- Identify areas to house all of the population of the region, including all economic segments, over the course of the planning period;
- Identify areas to accommodate an eight-year projection of regional housing needs;
- Identify a transportation network to service the transportation needs of the region,
- Gather and consider information regarding resource areas and farmland;
- Consider state housing goals;

- Set forth a forecasted development pattern which, when integrated with the transportation network, and other transportation measures and policies, will reduce the GHG emissions from automobiles and light trucks to achieve the GHG targets set by CARB; and
- Comply with the federal Clean Air Act.

If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate “Alternative Planning Strategy” to meet the regional GHG emission reduction target.

Local Data Exchange

A critical component to developing a successful Plan is the participation and cooperation of SCAG’s local government partners and stakeholders within the SCAG region. Beginning in February 2022, SCAG began the Local Data Exchange (LDX) process wherein local jurisdictions can provide feedback and edits on roughly 25 datasets, including land use data and preliminary growth projections, which serve as technical foundation for developing the land use component of the Connect SoCal 2024. LDX is associated with SCAG’s Regional Data Platform (RDP). By also providing tools and data back to local jurisdictions for their own plan updates through the RDP, the LDX process ensures participation of local jurisdiction, improves data accuracy, and improves coordination between local and regional long-range-plans.

SCAG’s Public Participation Plan and Process

Another key aspect of Plan development is public participation. To provide early and meaningful public participation in the Plan’s development and decision-making processes, SCAG has developed and adopted a Public Participation Plan (PPP).¹ The adoption of the PPP demonstrates SCAG’s commitment in increasing awareness and involvement of interested persons in SCAG’s governmental processes and regional transportation and land use planning. SCAG will provide information and timely public notice, ensuring full public access to key decisions, and supporting early and continuing public involvement in the development of the Plan. To this end, SCAG will continue to engage a wide range of stakeholder groups, elected officials, special interest groups, the general public, and other interested parties through a series of workshops and public meetings, as well as SCAG’s policy committees, task forces, and subcommittee structure during the development of the Plan and its associated PEIR. To stay informed on the Connect SoCal 2024 development process please visit: <https://scag.ca.gov/connect-socal>.

SCOPE AND CONTENT OF ENVIRONMENTAL IMPACT ANALYSIS IN THE DRAFT PEIR

The Connect SoCal 2024 PEIR is a programmatic document that will analyze potential effects of the proposed Plan on the environment. Although Connect SoCal 2024 will include a list of transportation projects and development patterns resulting from transportation and land use policies in the Plan, the PEIR does not specifically analyze environmental effects of any individual transportation or development project. Project-level environmental analyses will be prepared by implementing agencies on a project-by-project basis as individual projects proceed through the design, development, and decision-making process.

¹ Southern California Association of Governments. Public Participation Plan. Adopted April 7, 2022. <https://scag.ca.gov/community-participation-public-participation-plan>.

Environmental Setting

The Connect SoCal 2024 PEIR must identify significant environmental impacts that would be expected to result from implementation of the proposed Plan. Significant environmental impacts must be determined by applying explicit significance criteria to compare the future Plan conditions to the existing environmental setting (CEQA Guidelines Section 15126.2(a)). The CEQA Guidelines provide that the existing physical conditions at the time the Notice of Preparation is published will “normally” constitute the baseline. However, CEQA Guidelines Section 15125(a)(1) indicates that, “where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project’s impacts, a lead agency may define existing conditions by referencing historic conditions...that are supported by substantial evidence.”

SCAG will use a CEQA baseline that is considered the most appropriate for use to analyze the regional environmental impacts from Connect SoCal 2024 in the Draft PEIR. Considerations would include, for instance, availability of comprehensive data for land use, demographics, traffic count, and vehicle miles traveled (VMT), as well as technical and modeling assumptions for the proposed Plan. Where appropriate and identified throughout the Draft PEIR, the base year of the environmental and regulatory settings of some resource areas may vary to better characterize baseline conditions.

Environmental Issues and Topics

The potential content of environmental effects that warrant analysis in the Connect SoCal 2024 PEIR are as follows:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Mitigation Measures

CEQA requires that SCAG identify all feasible mitigation measures in the PEIR that will avoid or substantially lessen the significant environmental effects of the Plan. As SCAG has no concurrent authority/jurisdiction to implement mitigation related to transportation and land use projects or plans that implement Connect SoCal 2024, the 2024 PEIR is expected to employ the same approach to mitigation measures as those in the previously certified PEIRs for the 2016-2040 RTP/SCS and Connect SoCal (2020-2045 RTP/SCS), i.e., the 2024 PEIR will include two types of mitigation measures: SCAG mitigation measures and project-level mitigation measures.

SCAG mitigation measures are program wide measures for implementation by SCAG that address the large-scale regional impacts from the variety of projects spread over more than 20 years. In addition, the PEIR identifies project-level mitigation measures as resources for implementing agencies serving as CEQA lead agencies for later projects to consider, as applicable and feasible, when these agencies conduct and carry out subsequent, project-specific design, environmental analyses, and decision-making processes.

Preliminary Consideration of Alternatives to the Proposed Connect SoCal 2024

CEQA requires a discussion of alternatives to the Plan. The development of alternatives is focused on avoiding or reducing potentially significant adverse environmental impacts of the Plan while achieving most of the basic objectives of the Plan. The discussion of alternatives provides a means for evaluating the comparative merits of each alternative. The range of alternatives must be sufficient to permit a reasoned choice, and it need not include every conceivable project alternative. In addition, a CEQA document need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative. The key consideration for alternatives is whether the selection and discussion of alternatives foster informed decision making and public participation.

The Draft PEIR for Connect SoCal 2024 will evaluate a range of reasonable alternatives to the Plan, including a No Project Alternative. The No Project Alternative is required by CEQA Guidelines Section 15126.6(e)(2) and assumes what would reasonably be expected to occur in the foreseeable future if Connect SoCal 2024 were not adopted. The No Project Alternative assumes continued implementation of goals and polices of the adopted 2020 RTP/SCS, as amended and is based on trending 2020 RTP/SCS regional population, housing, and employment growth projection to the future. The No Project Alternative includes those transportation projects that are included in the first year of the previously conforming FTIP (i.e., 2023 FTIP). As with previous cycles, each alternative for the 2024 PEIR, except the No Project Alternative, will vary in terms of policies related to regional land use development patterns. It is also anticipated that the transportation network would be generally the same for the Plan and all alternatives, except for the No Project Alternative.

Based on SCAG staff’s preliminary evaluation of previous RTP/SCSs and respective alternatives analysis in the associated PEIRs, SCAG staff has generally observed that as local agencies incorporate RTP/SCS concepts into their own general/local plans, the previously analyzed no project alternatives are showing signs of converging with previous regional plans. Additionally, as the plan is updated and improves each cycle, it also gets closer to regional policies for more compact development patterns in high-quality transit areas (HQTAs). As such, SCAG has found that using a scenario planning process to identify alternative land use patterns for the 2024 RTP/SCS to be less useful and instead incorporated regional growth strategies in datasets for review by local jurisdictions which will then be incorporated into the Plan. Given this shift in approach and the converging of alternative scenarios, SCAG is currently considering a qualitative analytical approach for the alternatives other than the No Project Alternative.

SCAG anticipates that it will consider an Intensified Land Use Alternative which would be based on a transportation network for the 2024 RTP/SCS with more aggressive land use development patterns. Land use development patterns in this alternative would build on land use strategies as described in the Plan by maximizing growth around HQTAs. Potential growth patterns associated with this alternative would optimize urban areas and suburban town centers, livable corridors, and neighborhood mobility areas. The No Project Alternative and the Intensified Land Use Alternative are expected “book-ends” of the range of

potential alternatives to provide a framework for understanding the greatest potential impacts from alternatives when compared to the proposed Plan.

SCAG is seeking input on these preliminary alternatives as well as any other potential alternatives during the scoping process. Changes to the alternatives as a result of the scoping process could result in modifications to the number, content and scope of alternatives analyzed in the PEIR. Furthermore, the PEIR will identify alternatives that were initially considered, but rejected for reasons including infeasibility or inability of a particular alternative to meet the project objectives or reduce environmental impacts beyond that of the Project.

CEQA Streamlining and Tiering

SB 375 includes CEQA incentives, or streamlining provisions, to encourage coordinated land use and transportation planning. Certain types of development projects (i.e., transit priority projects or residential/mixed use residential projects, as defined by the statute) may qualify for CEQA streamlining as long as the requisite criteria are met. Consistency will be determined by the local jurisdiction that is the lead agency for each project to be streamlined. SCAG's primary role is to include appropriate information in the SCS, such as land use information as required by SB 375 and/or guidance to aid in interpreting land use information that will allow a jurisdiction to make a consistency determination with respect to appropriate streamlining options on a project-by-project basis.

In addition to providing for streamlining CEQA documentation in accordance with SB 375, the PEIR will support other CEQA streamlining options including those provided for in other regulations such as SB 743 (transit-oriented infill development), SB 226 (CEQA streamlining for infill development) as well as provisions of the CEQA Guidelines that provide for tiering and other streamlining mechanisms.

PUBLIC SCOPING MEETINGS AND COMMENTS

As mentioned previously, SCAG will host two (2) virtual public scoping meetings for the NOP, each providing the same information, on **Wednesday, November 9, 2022 from 6:00 PM to 8:00 PM and Thursday, November 10, 2022 from 10:00 AM to 12:00 PM.**

The meetings will be held in an online format using Zoom to share information regarding the proposed Plan and the environmental review process. You may join, view, and participate in the meetings by using the Zoom application, by your web browser, or by phone. Information for the webcast is provided below:

<https://scag.zoom.us/j/81023287939>

Dial by location: +1 669 900 6833 US Toll or +1 669 444 9171 US Toll

Meeting ID: 810 2328 7939

Each meeting will begin with a presentation and be followed by a question-and-answer session. The meetings will be open to the public and all stakeholders. Questions may be submitted via email in advance of the meeting at ConnectSoCalPEIR@scag.ca.gov, however there will also be opportunities for verbal questions taken at the meetings.

In accordance with the Americans with Disabilities Act, SCAG is committed to providing special accommodations to those who are interested in participating in the scoping meetings. SCAG is also committed to helping those with limited proficiency in the English language by providing translation

services in accordance with Title VI of the Civil Rights Act. We ask that you provide your request for special accommodations or translation services at least 72 hours prior to the scoping meetings so that SCAG has sufficient time to make arrangements.

To ensure full consideration of environmental issues with potential significant adverse impacts when preparing the Draft PEIR, **all written comments on the NOP must be received within thirty (30) days of the start of the required 30-day public review and comment period, which begins October 17, 2022, and ends November 16, 2022 at 5:00 PM (PST).**

Written comments on the NOP can be sent to Karen Calderon, Senior Regional Planner, either electronically to: ConnectSoCalPEIR@scag.ca.gov or by mail to the address shown below:

Southern California Association of Governments
Attn: Ms. Karen Calderon
900 Wilshire Blvd, Suite 1700
Los Angeles, California 90017

Please include a return address, the name, phone number, and email address of a contact person in your agency/organization, and the agency/organization name, if applicable.

CONTACT US

If you have any questions on the NOP or PEIR, would like to make a special accommodations request for a scoping meeting including translation, or wish to be placed on the mailing list to receive notices regarding the Connect SoCal 2024 PEIR, please contact Ms. Karen Calderon, Senior Regional Planner, at (213) 236-1983 or email ConnectSoCalPEIR@scag.ca.gov.

Signature: _____

Sarah Jepson, Director, Planning and Programs
Southern California Association of Governments

Date: _____



AGENDA ITEM 4
REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 - Policy A Meeting Room
Los Angeles, CA 90017
October 6, 2022

To: Community Economic & Human Development Committee (CEHD)
Energy & Environment Committee (EEC)
Transportation Committee (TC)
Regional Council (RC)
From: Emily Rotman, Junior Planner
(213) 630-1440, rotman@scag.ca.gov
Subject: SCAG Water Action Resolution

**EXECUTIVE DIRECTOR'S
APPROVAL**

RECOMMENDED ACTION FOR EEC:

That the Energy and Environment Committee (EEC) recommend the Regional Council (RC) adopt a Water Action Resolution of the Southern California Association of Governments (No. 22-647-3), which the resolution affirms a drought and water shortage emergency in the SCAG Region and calls on local and regional partners to join together to reduce water use; improve water conservation, reuse, and efficiency; and enhance water systems health and resilience.

RECOMMENDED ACTION FOR RC:

That the Regional Council (RC) adopt a Water Action Resolution of the Southern California Association of Governments (No. 22-647-3), which the resolution affirms a drought and water shortage emergency in the SCAG Region and calls on local and regional partners to join together to reduce water use; improve water conservation, reuse, and efficiency; and enhance water systems health and resilience.

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:

As part of the 2022-2023 Executive Administration Committee (EAC) Strategic Plan, the EAC identified water resilience as a core policy area for regional leadership. The Energy and Environment Committee (EEC) has received numerous presentations on the drought; recognizing the urgency of addressing local challenges related to water supply and infrastructure needs, the EEC recommended that SCAG take formal action. The proposed Water Action Resolution of the

Southern California Association of Governments affirms a drought and water shortage emergency in the SCAG Region and calls on local and regional partners to join together to reduce water use; improve water conservation, reuse, and efficiency; enhance water systems' health and resilience; and support investments in water infrastructure and conservation practices that support the region's economic and population growth and fosters planning for the Region's Housing Needs identified in Connect SoCal. In September 2022, staff sought feedback on the draft Resolution from the EEC. Feedback from EEC members and stakeholders has been incorporated into the proposed Resolution. Experts on water issues in the region will speak at Regional Council to help inform discussion on the proposed Resolution.

BACKGROUND:

The SCAG region is expected to grow by 1.7 million residents between years 2019 and 2050 and jurisdictions must plan for a regional housing need of 1.3 million new housing units by 2029. Climate change continues to impact the SCAG region's health, safety and economic welfare as extended dry heat days and persistent aridity worsen severe drought in California, and these in turn the ability to manage and support healthy growth.

Although many Southern Californians and water suppliers have made progress in reducing water use and improving efficiency, water use is outpacing water replenishment and reducing water supply at unsustainable rates. Clean, safe, and reliable water supply is central to Southern California's people, economy, and natural systems, and additional conservation actions as well as new infrastructure investments are needed to address the region's water challenges. With the past 22 years having been the driest period in the southwestern United States within 1200 years, planning for water resilience at regional and local scales has become increasingly important¹. Although Southern California water systems and planning do not yet account for persistent aridity, a shift towards greater local water reliance and efficiency can help mitigate and adapt to changing water supply and climate. Local water solutions include building upon underutilized resources, such as rainwater, grey water, stormwater, and water reuse and efficiency, as well as supporting the conservation and replenishment of water supplies, mitigating future water supply shortages, and investing in sustainable water infrastructure to ensure the health, safety, and welfare of communities, agriculture, and the environment can be sustained to support the projected economic and population growth of the region.

Additionally, extreme heat and ensuing periods of drought exacerbate challenges for both energy and water management and is a growing threat to lives and livelihoods across the state - especially for disadvantaged communities. The water-energy nexus was first recognized by the California Energy Commission in the 2005 Integrated Energy Policy Report in which it was found that 19 percent of California's total statewide electricity use – a third of non-power plant natural gas

¹ Williams, A.P., Cook, B.I. & Smerdon, J.E. Rapid intensification of the emerging southwestern North American megadrought in 2020–2021. *Nat. Clim. Chang.* 12, 232–234 (2022). <https://doi.org/10.1038/s41558-022-01290-z>

consumption and 88 billion gallons of diesel consumption -- are related to water. Water management and regional collaboration can play a prominent role in reducing energy demand and is a key part of the suite of solutions needed to help drive the clean energy transition forward.

In September 2022, staff sought feedback on the draft Resolution from the EEC and heard six verbal public comments. Staff have also been engaging with water agencies, community and non-profit organizations, members of the building and business communities, and experts in Southern California to ensure that the resolution addresses the region's water challenges and opportunities. Feedback from EEC members and stakeholders has been incorporated into the proposed Resolution, and those updates are summarized below:

- *References to the connection between water and supporting the region's housing needs and growth;*
- *Additional information on the economic impacts of drought in California, costs and affordability specific to California, and impacts of the water shortage in the Imperial Valley;*
- *Coordination with other stakeholders, including social and environmental justice organizations, housing groups, and public health organizations;*
- *Address the cost-effectiveness and feasibility for a wide range of strategies and solutions; and*
- *Inclusion of additional strategies and opportunities for water acquisition and storage, training and education, state legislation and programs, and alternative and innovative technologies.*

In SCAG's role to bring Southern California's diverse residents and local partners together with unifying regional plans, policies, and programs that result in healthy, livable, sustainable, and economically resilient communities, the following actions, with proposed additions underlined below, are proposed for inclusion in the Resolution to reduce water use; improve water conservation, reuse, and efficiency; enhance water systems' health and resilience; and support investments in water infrastructure and conservation practices that support the region's economic and population growth and fosters planning for the Region's Housing Needs identified in Connect SoCal:

1. SCAG shall support best practices in resource conservation as well as an integrated planning approaches to help local jurisdictions meet housing production needs in a drier environment.
2. SCAG shall continue to work with local jurisdictions to encourage planning for context sensitive infill and multifamily housing development, which shows lower per capita water consumption rates than alternative housing types².

² Keifer, J. and Krentz, L.(2018). *Water Use in the Multi-Family Housing Sector*.

3. SCAG shall, through the Resilience and Resource Conservation Subcommittee, further explore regional water challenges and solutions and report findings for consideration by SCAG's Energy and Environment Committee.
4. SCAG's Energy and Environment Committee shall make recommendations to SCAG's Legislative/Communications and Membership Committee to support legislative advocacy for increased resources for water infrastructure, including investments in repairs, modernization, and enhancements of the region's aging infrastructure, that can serve the community and regional needs of Southern California and ensure effectiveness, efficiency, and resiliency of the region's water systems.
5. SCAG shall coordinate with local jurisdictions, water agencies, the State, and other stakeholders, including social and environmental justice organizations, housing groups, and public health organizations, to foster adoption of alternative groundwater recharge technologies, such as permeable pavements, surface infiltration, and well injection systems, and best practices to increase and maintain a sustainable water supply for the region.
6. SCAG will explore opportunities to support implementation of green infrastructure, greywater usage systems and policy, including the development of model ordinances and training and education programs, as well as urban cooling infrastructure with a focus on improving groundwater recharge and reducing water usage in urban areas.
7. SCAG shall hold an Industry Forum and seek national expertise on investments in sustainable water infrastructure (and other horizontal utilities) that support housing production goals identified in the region's 6th Cycle Housing Elements.
8. SCAG shall identify, recommend and integrate into Connect SoCal 2024 policies and strategies to align investments in water infrastructure with housing needs and the adopted growth forecast and development pattern.
9. SCAG shall advocate with partners such as the United States Conference of Mayors, the National Association of Regional Councils, and other stakeholders for additional flexibility in the use of state and federal resources to support integrated planning and technical assistance for groundwater resources and associated infrastructure along with transportation, land use, energy, stormwater and air quality, as well as advocate for projects that expand water resources and infrastructure.
10. SCAG staff shall prepare a white paper on the state of water in the region that addresses multiple sectors; addresses issues related to water acquisition, storage, supply, demand and quality; identifies challenges and opportunities to support sustainable and resilient regional development as well as local jurisdictions in developing and implementing water planning efforts in an increasingly arid environment; explores the feasibility and cost-effectiveness of a wide range of strategies under an all-of-the-above approach to addressing the region's water challenges; and includes recommendations for practical ways to support implementing agencies.

11. SCAG staff shall periodically update the Energy and Environment Committee and seek guidance on the implementation of these aforementioned actions.

The proposed Water Action Resolution is included as **Attachment 1**.

Along with discussion of the proposed Resolution, at the Regional Council meeting two experts on water issues in the region will speak:

1. **Ellen Hanak** is Vice President and Director of the PPIC Water Policy Center and a senior fellow at the Public Policy Institute of California, where she holds the Ellen Hanak Chair in Water Policy. Under her leadership, the center has become a critical source of information and guidance for natural resource management in California. She has authored dozens of reports, articles, and books on water policy, including Managing California's Water. Her research is frequently profiled in the national media, and she participates in briefings, conferences, and interviews throughout the nation and around the world. Her other areas of expertise include climate change and infrastructure finance. Previously, she served as research director at PPIC. Before joining PPIC, she held positions with the French agricultural research system, the President's Council of Economic Advisers, and the World Bank. She holds a PhD in economics from the University of Maryland.

1. **Charles Wilson** serves as Executive Director and CEO of the Southern California Water Coalition (SCWC), a nonprofit, nonpartisan, public education partnership between cities, counties, business, industry, agriculture, and water agencies dedicated to securing reliable, affordable, quality water for Southern California. The SCWC was - established in 1984 - is a nonprofit, nonpartisan public education partnership dedicated to informing Southern Californians about water needs and the state's water resources. Through measured advocacy, SCWC works to ensure the health and reliability of Southern California's water supply. Spanning Los Angeles, Orange, San Diego, San Bernardino, Riverside, Ventura, Kern and Imperial counties, SCWC's approximately 200 member organizations include leaders from business, regional and local government, agricultural groups, labor unions, environmental organizations, water agencies, as well as the general public.

Wilson has been a leading public affairs professional in Southern California for more than 30 years and is a recognized leader in the industry. Wilson has spent the past 25 years in the electric utility industry with Southern California Edison where he led the development and implementation of third-party strategic planning and communication efforts and aligned company interests with local, state, and federal government officials and agencies.

Wilson also serves as principal owner of PC Consulting Services Inc, a consulting firm dedicated to providing strategic counsel, public affairs, government relations and communications to public agencies, private sector business clients and non-profits.

A graduate of UCLA, Charles earned his BA degree in political science with an emphasis in international relations and public administration. Wilson also earned his MA in Organizational Leadership from Azusa Pacific University.

FISCAL IMPACT:

Work for this item is covered under OWP item 065.4858.01, Regional Resiliency Analysis.

ATTACHMENT(S):

1. Resolution No. 22-647-3 - Water Resolution_Final
2. PowerPoint Presentation - Water Resolution ECC_Oct22_Final



RESOLUTION NO. 22-647-3

A RESOLUTION OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS AFFIRMING A DROUGHT AND WATER SHORTAGE EMERGENCY IN THE SCAG REGION AND CALLING ON LOCAL AND REGIONAL PARTNERS TO JOIN TOGETHER TO REDUCE WATER USE; IMPROVE WATER CONSERVATION, REUSE, AND EFFICIENCY; ENHANCE WATER SYSTEMS' HEALTH AND RESILIENCE; AND SUPPORT INVESTMENTS IN WATER INFRASTRUCTURE AND CONSERVATION PRACTICES THAT SUPPORT THE REGION'S ECONOMIC AND POPULATION GROWTH AND FOSTERS PLANNING FOR THE REGION'S HOUSING NEEDS IDENTIFIED IN CONNECT SOCIAL

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

REGIONAL COUNCIL OFFICERS

- President Jan C. Harnik, Riverside County Transportation Commission
First Vice President Carmen Ramirez, County of Ventura
Second Vice President Art Brown, Buena Park
Immediate Past President Clint Lorimore, Eastvale

COMMITTEE CHAIRS

- Executive/Administration Jan C. Harnik, Riverside County Transportation Commission
Community, Economic & Human Development Frank Yokoyama, Cerritos
Energy & Environment Deborah Robertson, Rialto
Transportation Ray Marquez, Chino Hills

WHEREAS, the Southern California Association of Governments (SCAG) is the largest metropolitan planning organization (MPO) in the United States covering six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura), and serving approximately 19 million people within 197 jurisdictions pursuant to 23 USC § 134 et seq. and 49 USC § 5303 et seq.; and

WHEREAS, SCAG is responsible for bringing Southern California's diverse residents and local partners together with unifying regional plans, policies, and programs that result in healthy, livable, sustainable, and economically resilient communities; and

WHEREAS, clean, safe, and reliable water supply is central to Southern California's people, economy, and natural systems; and

WHEREAS, the conservation and replenishment of water supplies, mitigation of future water supply shortages, and investment in sustainable water infrastructure are essential to ensuring the health, safety, and welfare of communities, agriculture, and the environment, and to supporting the projected economic and population growth of the region; and

WHEREAS, investments in sustainable water infrastructure are required to support the 1.3 million units of housing required in the 6th cycle Regional Housing Needs Allocation (RHNA) including recycled water systems; greywater capture and reuse; groundwater recharge; and urban runoff capture; and

WHEREAS, climate change will continue to threaten California's water supply and water quality resulting from a combination of persistent and extreme drought conditions, increased volatility in precipitation, continued reductions in snowpack, unsustainable use of groundwater, decreased soil moisture, and higher overall in-stream temperatures1; and

1 Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency (2019). California's Fourth Climate Change Assessment Statewide Summary Report.

Attachment: Resolution No. 22-647-3 - Water Resolution_Final (SCAG Water Action Resolution)

WHEREAS, higher temperatures associated with climate-related extreme heat conditions will continue to increase demand for water use, reduce available water supply and groundwater replenishment rates due to environmental factors²; and

WHEREAS, infill and multifamily development generally require less water than expansive regional development patterns, and the type of new development has a significant bearing on more water use to maintain lawns and other landscaping³; and

WHEREAS, in July 2020 the State released a Water Resilience Portfolio that includes a set of actions to meet California’s water needs through the 21st century, with principles that include prioritizing multi-benefit approaches that meet several needs at once; utilizing natural infrastructure such as forests and floodplains; embracing innovation and new technologies; encouraging regional approaches among water users sharing watersheds; and incorporating successful approaches from other parts of the world; and

WHEREAS, in August 2022 the State released a Water Supply Strategy that lays out a series of actions aimed at preparing for an estimated 10% decrease in California’s water supply by 2040 due to higher temperatures and decreased runoff by developing new water through recycling and desalination; capturing and saving more stormwater, above ground and below ground; reducing use of water in cities and on farms; and improving all water management actions with better data, forecasting, conveyance, and administration of water rights; and

SUPPLY THREATS

WHEREAS, on April 21, May 10, July 8, and October 19, 2021, Governor Newsom issued proclamations that a state of emergency exists statewide due to severe drought conditions and directed state agencies to take immediate action to preserve critical water supplies and mitigate the effects of drought⁴; and

WHEREAS, on January 18, 2022 and June 10, 2022, the State Water Resources Control Board adopted two emergency regulations to help conserve water as climate change continues to disrupt California’s water system⁵; and

WHEREAS, the Colorado River Basin supplies approximately 55 percent of Southern California’s water⁶, and, on August 16, 2021, the US Department of the Interior declared the first-ever water shortage declaration in history for the Colorado River Basin as water flows and reservoir levels have dramatically declined due to climate change; and

² Ibid.

³ SCAG (2020). *Connect SoCal, Sustainable Communities Strategy Technical Report*,

⁴ State Water Resources Control Board (May 24, 2022). *Resolution 2022-0018 TO ADOPT AN EMERGENCY REGULATION TO REDUCE WATER DEMAND AND IMPROVE WATER CONSERVATION* State Water Resources Control

⁵ State Water Resources Control Board (2022). *Water Conservation Portal, Water Conservation Emergency Regulations*.

WHEREAS, groundwater is a critical resource that accounts for 40 percent of California’s total annual water supply in normal years and almost 60 percent in drought years when surface water is less available, but California’s current groundwater levels are strained with approximately 63 percent of monitoring wells at historic lows⁷ and groundwater overdraft has led to land subsidence and damage to infrastructure, drying up of local wells, depletion of streamflows, and decreased water quality⁸; and

ECONOMIC THREATS

WHEREAS, recent analysis from University of California, Davis estimates that the 2016 drought in California resulted in over \$600 million in direct economic damages (annual losses) and resulted in the loss of 4,700 jobs⁹; and

WHEREAS, pressures from climate change, sanitation and water quality needs, and necessary infrastructure upgrades are placing increasing strain on water prices. Estimates of the cost to replace aging infrastructure in the United States are projected to be over \$1 trillion dollars in the next 20 years to replace outdated systems and could triple the cost of household water bills¹⁰; and

WHEREAS, California spends about \$37 billion annually on its water system, with 84 percent of funding coming from local water bills and taxes, and urban utilities must raise funds to replace aging infrastructure, comply with requirements, and update infrastructure to adapt to climate change¹¹; and

WHEREAS, projected increases in water rates over the next five years estimate that the percentage of U.S. households who will find water bills unaffordable could triple from roughly 12 percent to over 35 percent¹²; and

WHEREAS, monthly water bills have been growing two to three times faster than inflation in California’s urban areas and lower-income households across California face growing affordability challenges as water bills increase, with nearly 13 percent statewide of single-family households with water bills that exceed 2 percent of their annual incomes¹³; and

WHEREAS, water bills have been rising faster than inflation in many parts of California to cover rising costs and State Water Board estimates that 21 percent of California’s water systems have water rates that are unaffordable (i.e., cost 1.5 percent or more of median household income) for basic needs¹⁴; and

⁷ State of California Department of Water Resources. *California’s Groundwater Live Current Groundwater Conditions*.

⁸ Cooley, H. et al.(Apr. 2022). *The Untapped Potential of California’s Urban Water Supply: Water Efficiency, Water Reuse, and Stormwater Capture*.

⁹ Medellín-Azuara, J. et al. (2016). *Economic Analysis of the 2016 California Drought on Agriculture*.20.

¹⁰ Mack, E, and Wrase, S (2017). *A Burgeoning Crisis? A Nationwide Assessment of the Geography of Water Affordability in the United States*.

¹¹ Chappelle, C. et al. (May 2021). Public Policy Institute of California. *Paying for California’s Water System*.

¹² Ibid.

¹³ Hanak, E. et al. (Mar. 2014). Public Policy Institute of California. *Paying For Water in California*.

¹⁴ Chappelle, C. and Hanak, E. (May 2021). Public Policy Institute of California. *Water Affordability in California Fact Sheet*.

WHEREAS, renters and low-income households are less likely to participate in water conservation and efficiency programs¹⁵; and

AGRICULTURE/NATURAL LAND/HEAT THREATS

WHEREAS, agriculture is an invaluable asset to the SCAG region but agricultural production is increasingly vulnerable to drought impacts, water shortages, and over-reliance on groundwater to withstand droughts¹⁶; and

WHEREAS, the direct economic impacts of prolonged drought on water quality and agriculture at national level are estimated to be greater than \$3 billion annually¹⁷; and

WHEREAS, the 2021 drought directly cost the California agricultural sector \$1.2 billion and approximately 8,745 jobs¹⁸ and the total impacts including other economic sectors are estimated at \$1.7 billion and 14,634 jobs; and

WHEREAS, climate change related increases in extreme heat days reduce available water supply through evapotranspiration, and can lead to deadly pathogens in freshwater sources¹⁹; and

WHEREAS, low water storage levels and water right curtailments as a result of drought reduced surface water deliveries to farms in 2021 and water shortages led to an additional estimated 395,000 acres of idled land and an estimated \$1.1 billion in crop revenue losses and increased pumping costs due to deficit irrigation²⁰; and

WHEREAS, the Colorado River is the Imperial Valley's only source of water and the Imperial Valley has been using less water, conserving over 7 million acre-feet of the Colorado River and California's water supplies²¹; and

WHEREAS, in June 2022, the Federal Bureau of Reclamation requested that states and Tribes in the Colorado River Basin, including California and the Imperial Valley that depends on water from the Colorado River, will need to collectively conserve between 2 to 4 million-acre feet in 2023²²;

¹⁵ Pierce, G. et al. (Mar. 25, 2021). *Solutions to the problem of drinking water service affordability: A review of the evidence*.

¹⁶ Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency (2019). *California's Fourth Climate Change Assessment Statewide Summary Report*.

¹⁷ Governor's Office of Planning and Research, California Energy Commission, and California Natural Resources Agency (2019). *California's Fourth Climate Change Assessment Statewide Summary Report*.

¹⁸ Medellín-Azuara, J. et al. (2022). *Economic Impacts of the 2021 Drought on California Agriculture. Preliminary Report*.

¹⁹ UNICEF (Mar. 18, 2022). *Water and the global climate crisis: 10 things you should know*. W

²⁰ Escriva-Bou, A. et al. (Apr. 2022). Public Policy Institute of California. *Policy Brief: Drought and California's Agriculture*.

²¹ Hanks, J. (Jun. 16, 2022). *IID Board President Issues Statement on Federal Hearing Examining Solutions to Extreme Drought in Western U.S.*

²² United States Bureau of Reclamation (June 14, 2022). Colorado River Basin. *Commissioner Touton asks Basin States and Tribes to conserve an additional 2-4 million acre-feet of water in 2023*.

WHEREAS, extreme heat increases demand for potable drinking water to offset certain heat-related health impacts²³; and

OPPORTUNITIES

WHEREAS, conserving water and local water supplies can support climate change mitigation and adaptation, as saving water and replacing imported water with water reuse and stormwater capture requires less energy and reduces greenhouse gas emissions²⁴; and

WHEREAS, water systems that rely on groundwater tend to have lower rates, as treatment and delivery costs are relatively low²⁵; and

WHEREAS, natural areas play an important role in groundwater recharge, protecting watershed and riparian areas, and ensuring clean drinking water for the region, and on October 7, 2020, Governor Newsom issued the Nature-Based Solutions Executive Order N-82- 20, that committed California to the goal of conserving 30 percent of our lands and coastal waters by 2030²⁶; and

WHEREAS, water conservation is the easiest, most efficient, and most cost-effective way to quickly reduce water demand and extend limited water supplies²⁷; and

WHEREAS, within Metropolitan Water District of Southern California’s service area, the percentage of local water supplies has increased, providing over 50 percent of the water used in 2020 through use of groundwater, local surface water, recycled water, and recovered groundwater²⁸; and

WHEREAS, many Southern Californians and water suppliers have made progress in reducing water use and improving efficiency; however, water use is outpacing water replenishment and reducing water supply at unsustainable rates, and additional conservation actions are needed to address the region’s water challenges²⁹; and

WHEREAS, California could further reduce water use by more than 30 percent in cities and suburbs by investing in measures to use water more efficiently³⁰; and

²³ Gisolfi, C. (1993). *Water Requirements During Exercise in the Heat.*

²⁴ Davis, M. (Jun. 2, 2022). *SCAG Energy and Environment Committee, The Evolving Role of Water in Regional Resilience Planning.* 96.

²⁵ Chappelle, C. and Hanak, E. (May 2021). Public Policy Institute of California. *Water Affordability in California Fact Sheet.*

²⁶ Executive Department State of California (Oct. 7, 2020). *Executive Order N-82-20.*

²⁷ State Water Resources Control Board (May 24, 2022). *Resolution 2022-0018 TO ADOPT AN EMERGENCY REGULATION TO REDUCE WATER DEMAND AND IMPROVE WATER CONSERVATION.*

²⁸ Davis, M. (Jun. 2, 2022). *SCAG Energy and Environment Committee, The Evolving Role of Water in Regional Resilience Planning.* 92.; Cooley, H. et al. (Apr. 2022). *The Untapped Potential of California’s Urban Water Supply: Water Efficiency, Water Reuse, and Stormwater Capture.*

²⁹ Mount, J., Ellen Hanak, et. al. (May, 2019). *Water Use in California.* Public Policy Institute of California.

³⁰ Cooley, H. et al. (Apr. 2022). *The Untapped Potential of California’s Urban Water Supply: Water Efficiency, Water Reuse, and Stormwater Capture.* The Pacific Institute.

WHEREAS, water is necessary to support growth in Southern California and build much-needed housing for the region, and a compact development pattern and the building of infill housing allows for less water consumption, greater water-efficiency, and lower infrastructure costs³¹; and

WHEREAS, Senate Bill 222 establishes the Water Rate Assistance Fund in the State Treasury to help provide water affordability assistance, for both drinking water and wastewater services, to low-income residential ratepayers³²; and

WHEREAS, the United States Conference of Mayors adopted a resolution in June 2022 clarifying that current state and federal funding of Metropolitan Planning Organizations (MPO) primarily supports transportation planning and related land use, stormwater and air quality considerations, and restricts use of funds for planning and technical assistance on many water related issues, which inhibits MPOs from holistically planning for water systems, including groundwater resources and associated infrastructure, resulting in a missed opportunity to integrate the program funding more effectively³³; and

WHEREAS, SCAG has adopted mitigation measures for its most recent long-range plan, Connect SoCal 2020, related to coordinating and working with local jurisdictions and water agencies; encouraging regional-scale planning for improved stormwater management, groundwater recharge, wastewater and stormwater management, water quality management, pollution prevention, and drainage patterns; and fostering the implementation of urban greening, greenbelts, and community separator land use strategies that promote improved water quality, groundwater recharge, watershed health, reduced urban runoff, stormwater and rainwater collection³⁴; and

WHEREAS, SCAG is developing a Regional Resilience Framework to help local agencies adapt to persistently arid and drought conditions in the region, with guidance and policy direction from the Resilience & Conservation Subcommittee and Energy & Environment Policy Committee;

NOW, THEREFORE, BE IT RESOLVED that the Regional Council of SCAG affirms a commitment to support implementing agencies plan for reduced water use; improved water conservation, reuse, and efficiency; enhanced water systems' health and resilience; and investments in sustainable water infrastructure and conservation practices that support the region's economic and population growth and fosters planning for the region's housing needs identified in Connect SoCal.

BE IT FURTHER RESOLVED:

1. SCAG shall support best practices in resource conservation as well as an integrated planning approaches to help local jurisdictions meet housing production needs in a drier environment.

³¹ Decker, N. et al. (2020). *Right Type Right Place, Assessing the Environmental and Economic Impacts of Infill Residential Development through 2030*. Terner Center for Housing Innovation.

³² California Legislative Information (September 1, 2022). *SB-222 Water Rate Assistance Program*.

³³ United States Conference of Mayors (June 2022). *Breaking Silos to Use the BIL Funding for Transportation, Land Use, and Water Planning*.

³⁴ SCAG (May 2020). *Connect SoCal Certified Final Program Environmental Impact Report*.

2. SCAG shall continue to work with local jurisdictions to encourage planning for context sensitive infill and multifamily housing development, which shows lower per capita water consumption rates than alternative housing types³⁵.
3. SCAG shall, through the Resilience & Resource Conservation Subcommittee, further explore regional water challenges and solutions and report findings for consideration by SCAG's Energy & Environment Committee.
4. SCAG's Energy & Environment Committee shall make recommendations to SCAG's Legislative Communications & Membership Committee to support legislative advocacy for increased resources for water infrastructure, including investments in repairs, modernization, and enhancements of the region's aging infrastructure, that can serve the community and regional needs of Southern California and ensure effectiveness, efficiency, and resiliency of the region's water systems
5. SCAG shall coordinate with local jurisdictions, water agencies, the State, and other stakeholders, including social and environmental justice organizations, housing groups, and public health organizations, to foster adoption of alternative groundwater recharge technologies, such as permeable pavements, surface infiltration, and well injection systems, and best practices to increase and maintain a sustainable water supply for the region.
6. SCAG will explore opportunities to support implementation of green infrastructure, greywater usage systems and policy, including the development of model ordinances and training and education programs, as well as urban cooling infrastructure with a focus on improving groundwater recharge and reducing water usage in urban areas.
7. SCAG shall hold an Industry Forum and seek national expertise on investments in sustainable water infrastructure that support housing production goals identified in the region's 6th Cycle Housing Elements.
8. SCAG shall identify, recommend and integrate into Connect SoCal 2024 policies and strategies to align investments in water infrastructure with housing needs and the adopted growth forecast and development pattern.
9. SCAG shall advocate with partners such as the United States Conference of Mayors, the National Association of Regional Councils, and other stakeholders for additional flexibility in the use of state and federal resources to support integrated planning and technical assistance for groundwater resources and associated infrastructure along with transportation, land use, energy, stormwater and air quality, as well as advocate for projects that expand water resources and infrastructure.
10. SCAG staff shall prepare a white paper on the state of water in the region that addresses multiple sectors; addresses issues related to water acquisition, storage, supply, demand and quality; identifies challenges and opportunities to support sustainable and resilient regional

³⁵ Keifer, J. and Krentz, L.(2018). *Water Use in the Multi-Family Housing Sector*.

development as well as local jurisdictions in developing and implementing water planning efforts in an increasingly arid environment; explores the feasibility and cost-effectiveness of a wide range of strategies under an all-of-the-above approach to addressing the region's water challenges; and includes recommendations for practical ways to support implementing agencies.

11. SCAG staff shall periodically update the Energy & Environment Policy Committee and seek guidance on the implementation of these aforementioned actions.

PASSED, APPROVED AND ADOPTED by the Regional Council of the Southern California Association of Governments at its regular meeting this 6th day of October, 2022.

Jan C. Harnik
President, SCAG
Riverside County Transportation Commission

Attested by:

Kome Ajise
Executive Director

Approved as to Form:

Michael R.W. Houston
Chief Counsel

SCAG Proposed Water Action Resolution

October 2022

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Background On Drought Conditions in California

- Second driest two-year period since 1895
- **100%** of California is "abnormally dry"
- **94.1%** of California is in "extreme drought"
- **16.6%** of California is in "exceptional drought" (the most severe condition)
- First-ever water shortage declared for the Colorado River Basin in 2022
- 60% of the state's water needs are met by groundwater, up from 40% in normal conditions



Economic Impacts of Drought in California

- \$1.7 billion and 14,634 lost jobs
- Including losses of \$1.2 billion and 8,745 jobs for the agricultural sector
- Significant impacts to agricultural sector as drought constrains water supply and increases water demands & raises costs and reduces revenue



3








Impacts to Local Agencies

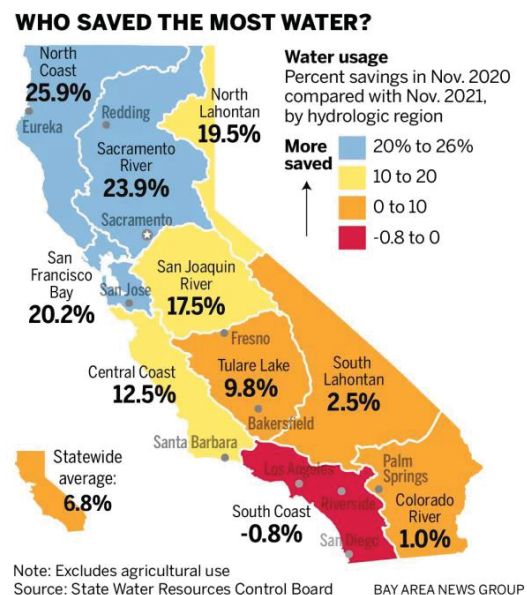
- Recent Executive Orders estimate a 20-30% reduction in water demand
- Water shortage emergency declared by many water districts, including the Metropolitan Water District (MWD)
- Current local water infrastructure may fall short of meeting needs for growth in many localities
- Local water agencies must submit Drought Response Plans



4

Potential Local Actions to Reduce Water Demand

-  Water conservation
-  Increasing water supply and storage infrastructure
-  Increasing groundwater and urban water runoff capture
-  Adoption of new technology and approaches
-  Water infrastructure resource support needed for local action
-  Sustainable land use patterns
-  Collaboration to tackle issues for regional solutions and advocacy



SCAG Water Action Resolution Proposed Direction (#1-3)

1. SCAG shall support best practices in resource conservation as well as an integrated planning approaches to help local jurisdictions meet housing production needs in a drier environment.
2. SCAG shall continue to work with local jurisdictions to encourage planning for context sensitive infill and multifamily housing development, which shows lower per capita water consumption rates than alternative housing types.
3. SCAG shall, through the Resilience & Resource Conservation Subcommittee, further explore regional water challenges and solutions and report findings for consideration by SCAG's Energy & Environment Committee.

SCAG Water Action Resolution Proposed Direction (#4-5)

4. SCAG's Energy & Environment Committee shall make recommendations to SCAG's Legislative Communications & Membership Committee to support legislative advocacy for increased resources for water infrastructure, including investments in repairs, modernizations, and enhancements of the region's aging infrastructure, that can serve the community and regional needs of Southern California and ensure effectiveness, efficiency, and resiliency of the region's water systems.
5. SCAG shall coordinate with local jurisdictions, water agencies, the State, and other stakeholders, including social and environmental justice organizations, housing groups, and public health organizations, to foster adoption of alternative groundwater recharge technologies, such as permeable pavements, surface infiltration, and well injection systems, and best practices to increase and maintain a sustainable water supply for the region.

7

SCAG Water Action Resolution Proposed Direction (#6-7)

6. SCAG will explore opportunities to support implementation of green infrastructure, greywater usage systems and policy, including the development of model ordinances and training and education programs, as well as urban cooling infrastructure with a focus on improving groundwater recharge and reducing water usage in urban areas.
7. SCAG shall hold an Industry Forum and seek national expertise on investments in sustainable water infrastructure that support housing production goals identified in the region's 6th Cycle Housing Elements.
8. SCAG shall identify, recommend and integrate into Connect SoCal 2024 policies and strategies to align investments in water infrastructure with housing needs and the adopted growth forecast and development pattern.

8

SCAG Water Action Resolution Proposed Direction (#9-11)

9. SCAG shall advocate with partners such as the United States Conference of Mayors and other stakeholders for additional flexibility in the use of state and federal resources to support integrated planning and technical assistance for groundwater resources and associated infrastructure along with transportation, land use, energy, stormwater and air quality, as well as advocate for projects that expand water resources and infrastructure.
10. SCAG staff shall prepare a white paper on the state of water in the region that addresses multiple sectors; addresses issues related to water acquisition, storage, supply, demand and quality; identifies challenges and opportunities to support sustainable and resilient regional development and local jurisdictions in developing and implementing water planning efforts in an increasingly arid environment; explores the feasibility and cost-effectiveness of a wide range of strategies under an all-of-the-above approach to addressing the region's water challenges; and includes recommendations for practical ways to support implementing agencies.
11. SCAG staff shall periodically update the Energy & Environment Policy Committee and seek guidance on the implementation of these aforementioned actions.

9



THANK YOU!

For more information, please visit:

www.scag.ca.gov



AGENDA ITEM 5 REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 - Policy A Meeting Room
Los Angeles, CA 90017
October 6, 2022

To: Energy and Environment Committee (EEC)

EXECUTIVE DIRECTOR'S
APPROVAL

From: Alison Linder, Senior Planner
(213) 236-1934, linder@scag.ca.gov

Subject: Southern California Energy Outlook, Transition to Renewable Energy

RECOMMENDED ACTION:

Information Only - No Action Needed

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:

In preparing for 2024 Connect SoCal Plan, SCAG must set a vision for the region's growth, including the future of the transportation system, housing, and other land uses. A sustainable and reliable energy supply to support the growth and needs of the region will be critical. SB 100, passed in 2018, set a 2045 goal of powering all retail and state agency electricity needs with renewable and zero carbon resources, and a target of 60% renewables by 2030. An increase in decarbonization and electrification of buildings and the transportation network will bring an increased demand for storage of intermittent renewable resources. Energy providers must also plan grid resilience as the climate continues to warm. SCAG has convened an energy panel who will provide an overview and discussion on efforts to prepare for our energy future.

Yuliya Schmidt, Advisor to Commissioner Rechtschaffen, California Public Utilities Commission (CPUC) and Aleecia Gutierrez, California Energy Commission (CEC), will share state initiatives and the results of the SB 100 demand analysis. Zanku Armenian, Director of Public Affairs for Southern California Edison (SCE) will discuss regional energy plans, and Mike Todd, Principal Development Engineer & Facilities and Safety Coordinator, Center for Environmental Research and Technology (CERT), University of California Riverside (UCR) will share information about promising technologies for energy storage.

BACKGROUND:

In preparing for 2024 Connect SoCal Plan, SCAG must set a vision for the region's growth, including the future of the transportation system, housing, and other land uses. As the region grows, a

sustainable and reliable energy supply will be critical. SB 100, passed in 2018, set a 2045 goal of powering all retail and state agency electricity needs with renewable and zero carbon resources, and a target of 60% renewables by 2030. An increase in decarbonization and electrification of buildings and the transportation network will bring an increased demand for storage of intermittent renewable resources. Energy providers must also plan grid resilience as the climate continues to warm.

Further, the Advanced Clean Cars II Rule has mandated that 100% of new passenger vehicle sales will be zero emissions by 2035. AB 2127, passed in 2018, requires the CEC to biennially assess the electric vehicle charging infrastructure needed to meet the state goal of 5 million EVs by 2030 and reducing greenhouse gas emission to 40% below 1990 levels by 2030.

This energy panel will feature several speakers who can discuss efforts to prepare for our energy future. The speakers and topics are as follows:

- **Speakers:** Yuliya Schmidt, Advisor to Commissioner Rechtschaffen, California Public Utilities Commission (CPUC) and Aleecia Gutierrez, California Energy Commission (CEC)
- **Topic:** State initiatives and the results of the SB 100 demand analysis.

- **Speaker:** Zanku Armenian, Director of Public Affairs for Southern California Edison (SCE)
- **Topic:** Overview of regional energy plans

- **Speaker:** Mike Todd, Principal Development Engineer and Facilities and Safety Coordinator, Center for Environmental Research and Technology (CERT), University of California Riverside (UCR)
- **Topic:** Overview of emerging technologies for energy storage.

By 2045, population and economic growth will result in peak loads to the state's electrification system. As such, the energy sector will need to quickly resolve energy storage issues using sustainable and emerging technologies, to meet the state's 2030-2045 goals. Energy storage will be essential as most carbon-free generation sources are intermittent. The grid must have sufficient capacity and modernize to harness the full potential of distributed energy resources.

In 2021, the CEC completed the SB 100 report¹, which evaluated the state's future energy demands. The report provides analysis of energy and infrastructure needs and associated costs. According to the report, hydro, geothermal, nuclear, and biomass will be phased out as energy sources, and a

¹ 2021 SB 100 Joint Agency Report, Achieving 100 Percent Clean Electricity in California: An Initial Assessment, (2021) Available at <https://www.energy.ca.gov/publications/2021/2021-sb-100-joint-agency-report-achieving-100-percent-clean-electricity>

greater dependence will be placed on wind and solar. This reliance on renewable sources will result in a timing imbalance that exists between solar generation and daily peak load, also known as the “duck curve.” To mitigate the “duck scale” effect and hit our decarbonation goals, energy storage will have to be constructed by a factor of eight (8), while solar and wind energy sources will have to be constructed by a factor of three (3).

CPUC regulates investor-owned utilities (IOUs) such as SCE, ensuring that they charge just and reasonable rates and provide safe and reliable service. As such, new investments in energy infrastructure must be approved by CPUC as the cost of investments will likely be passed on to consumers. Through Integrated Resource Planning, CPUC forecasts demand over 10 years and studies expected reliability. If they deem that additional capacity is necessary to ensure reliability, the CPUC will order that load-serving entities procure new generation or storage resources.

In response to AB 2127, CEC did an EV Charging Infrastructure Assessment and found that EV demand was not expected to be a large part of the total load. CPUC also anticipates that vehicle to grid technologies have potential to reduce grid impact, provide additional load and provide power back to the grid at critical times. This may potentially reduce the cost of EV ownership for consumers by providing a revenue stream as they sell power back to the grid.

SCE provides energy to a large portion of the SCAG region, while other cities get their power from municipal providers. The forecast for SCE territory is a 60% increase in energy demand and 40% increase in peak load by 2045. SCE intends to invest five billion dollars per year to maintain, improve and harden its infrastructure. Updates are being made to transmission, distribution, and interconnection infrastructure in addition to upgrades to reduce the risk of wildfire. Solar and wind are anticipated to provide most of the energy in 2045, and hydro facilities are also being improved for hydroelectric power in the near term. Similar to the state outlook, as solar and wind become more prominent power sources, storage becomes more critical. As storage technologies proliferate, consumers can provide distributed energy resources through independent batteries and other storage. Furthermore, electric vehicle technologies can help by storing energy and in some cases, using it to power their homes or return the energy to the grid.

The UCR Center for Environmental Technology and Research (CERT) is currently working on innovative technologies for energy storage. One example is the Sustainable Integrated Grid Initiative (SIGI) which demonstrates the integration of solar energy, microgrid storage and electric vehicle utilization. CERT is also testing a Mobile Renewable Backup Generation which includes both Vehicle to Grid and Vehicle to Building Operations. The research center is also evaluating energy supply integration with infrastructure, which has relevance for zero emission vehicles supporting infrastructure.

To meet the state's obligations by 2045, solutions are needed for additional energy storage. Initial forecasts suggest adequate supply to meet the scaling up of electric vehicles, though continued investment in distribution and interconnection and programs to better manage load will be important. Research is being done to evaluate technologies for energy storage and integration and electric vehicles may be part of the solution.

SCAG will continue to identify and evaluate programs which promote energy resilience and provide periodic updates to the ECC.

FISCAL IMPACT:

Funding for work on this issue is included in the Fiscal Year 2023 Overall Work Program, Task 115.4912.01, Clean Technology Program.

ATTACHMENT(S):

1. PowerPoint Presentation - SB 100 EV Adoption - Oct 2022
2. PowerPoint Presentation - UCR CA ZEV Transition Research
3. PowerPoint Presentation - Preparing the Grid for Transportation Electrification CPUC
4. PowerPoint Presentation - SCE Grid Resiliency and Reliability



Transitioning California's Energy System

California's
Climate Imperative



BY 2100

**AVERAGE ANNUAL MAXIMUM
DAILY TEMPERATURE**

IS PROJECTED TO INCREASE BY

5.6–8.8°F

Depending on greenhouse gas emissions reductions. The greatest increase is seen with business-as-usual emissions levels.

Source: California's Fourth Climate Change Assessment





California's Climate Imperative

More Acres Burned From Wildfires in 2020 Than the Last Four Years Combined

2016-'19



3.7
MILLION

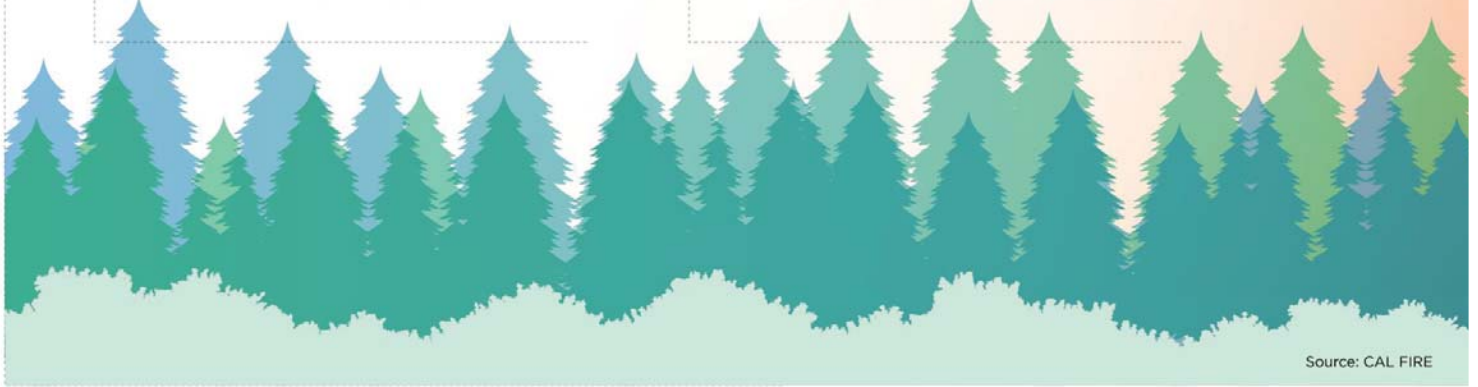
Estimated Acres Burned

2020



4.2
MILLION

Estimated Acres Burned



Source: CAL FIRE

Senate Bill 100

Officially titled "The 100 Percent Clean Energy Act of 2018,"
Senate Bill 100 (SB 100, De León):

- 1 Sets a 2045 goal of powering all retail electricity sold in California and state agency electricity needs with renewable and zero-carbon resources.
- 2 Updates the state's Renewables Portfolio Standard to ensure that by 2030 at least 60 percent of California's electricity is renewable.
- 3 Requires the CEC, CPUC, and CARB to use programs under existing laws to achieve 100 percent clean electricity and issue a joint policy report on SB 100 by 2021 and every four years thereafter.



The 2021 SB 100 Joint Agency Report

The 2021 report is a first step to evaluate the challenges and opportunities in implementing SB 100.

It includes an initial assessment of the additional energy resources and the resource building rates needed to achieve 100 percent clean electricity, along with the associated costs.

The estimates in this report will change over time as additional factors, such as system reliability, land use, energy equity, and workforce needs, are more closely examined.



California

Clean Electricity Resources

Projected to increase annual costs 6% above a 60% RPS baseline

* Includes in-state

** Includes in-state and out of state capacity

† New hydro and nuclear resources were not candidate technologies for this round of modeling and could not be selected



Achieving 100% Clean Electricity in California

- Solar (Utility-Scale)
- Solar (Customer)
- Storage (Battery)
- Storage (Long Duration)
- Wind (Onshore)
- Wind (Offshore)
- Geothermal
- Biomass
- Hydrogen Fuel Cells
- Hydro (Large)
- Hydro (Small)
- Nuclear

	Existing Resources	Projected New Resources	
	2019*	2030**	2045**
Solar (Utility-Scale)	12.5 GW	16.9 GW	69.4 GW
Solar (Customer)	8.0 GW	12.5 GW	28.2 GW
Storage (Battery)	0.2 GW	9.5 GW	48.8 GW
Storage (Long Duration)	3.7 GW	0.9 GW	4.0 GW
Wind (Onshore)	6.0 GW	8.2 GW	12.6 GW
Wind (Offshore)	0 GW	0 GW	10.0 GW
Geothermal	2.7 GW	0 GW	0.1 GW
Biomass	1.3 GW	0 GW	0 GW
Hydrogen Fuel Cells	0 GW	0 GW	0 GW
Hydro (Large)	12.3 GW	N/A†	N/A†
Hydro (Small)	1.8 GW	N/A†	N/A†
Nuclear	2.4 GW	N/A†	N/A†

To Achieve Clean Energy

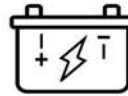
Development Needs To Rapidly Accelerate



Solar & Wind

3X

Solar and wind build rates need to nearly triple*



Battery

8X

Battery storage build rates need to increase by nearly eightfold**



*Based on 10-year average | **Based on 2020



Additional Scenarios: Preliminary Findings



High Demand Flexibility:

Increased flexibility may lower overall resource needs and systems costs

Study Scenarios

The agencies also explored scenarios outside their interpretation of SB 100 to inform broader state planning efforts



No-Combustion:

Reduces criteria air pollution but results in higher costs



Zero-Carbon Firm Resources:

Commercialization of emerging technologies or cost decreases in existing firm resources may lower overall system costs



Accelerated Timeline:

These targets may be achievable but may increase overall costs

Key Takeaways from Modeling

This initial analysis suggests SB 100 is technically achievable through multiple pathways.

Construction of clean electricity generation and storage facilities must be sustained at record-setting rates.

Diversity in energy resources and technologies lowers overall costs.

Retaining some natural gas power capacity may minimize costs while ensuring uninterrupted power supply during the transition to 100 percent clean energy.

Increased energy storage and advancements in zero-carbon technologies can reduce natural gas capacity needs.

Further analysis is needed.



Recommendations for Further Analysis

- 1 Verify that scenario results satisfy the state's grid reliability requirements.
- 2 Continue to evaluate the potential effects of emerging resources, such as offshore wind, long-duration energy storage, green hydrogen technologies, and demand flexibility.
- 3 Assess environmental, social, and economic costs and benefits of the additional clean electricity generation capacity and storage needed to implement SB 100.
- 4 Hold annual workshops to support alignment among the joint agencies and continuity between SB 100 reports.



Related Clean Energy Efforts



Transportation electrification

California is moving toward having 100 percent of new cars and passenger trucks sold in the state be zero-emission by 2035, powered by increasingly clean electricity.



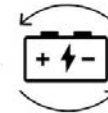
Energy efficiency

Improved energy efficiency will reduce the economic and environmental costs of expanding California's clean electricity generating capacity.



Building decarbonization

Electrifying more building energy uses is environmentally more effective if the power comes from zero-carbon sources.



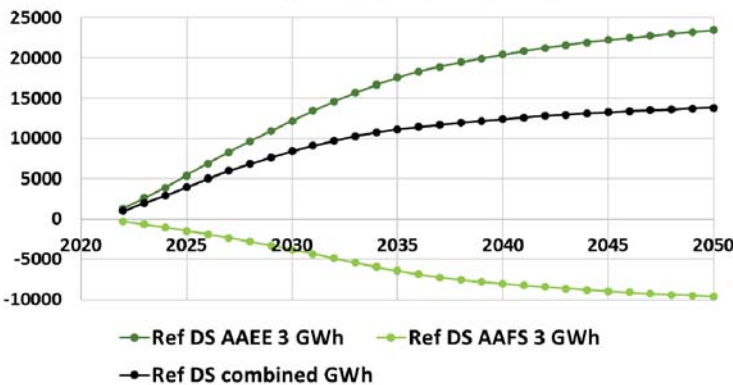
Load flexibility

Increased load flexibility is critical to maintaining a reliable power supply at a low cost.

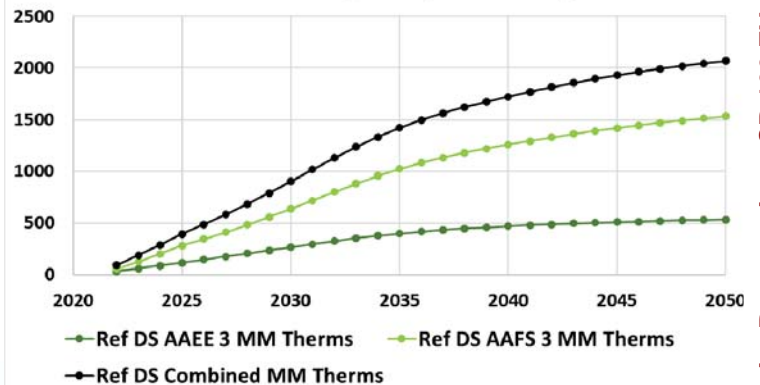


Buildings Components of Reference Scenario Statewide Additional Achievable Energy Efficiency (AAEE) & Additional Achievable Fuel Substitution (AAFS)

Electricity Savings/Impacts (GWh)



Gas Saved/Displaced (MM Therms)



- Both AAEE and AAFS reduce gas consumption statewide
- While AAEE also reduces electricity consumption, AAFS adds an incremental amount; however, the overall combined electricity consumption is still reduced

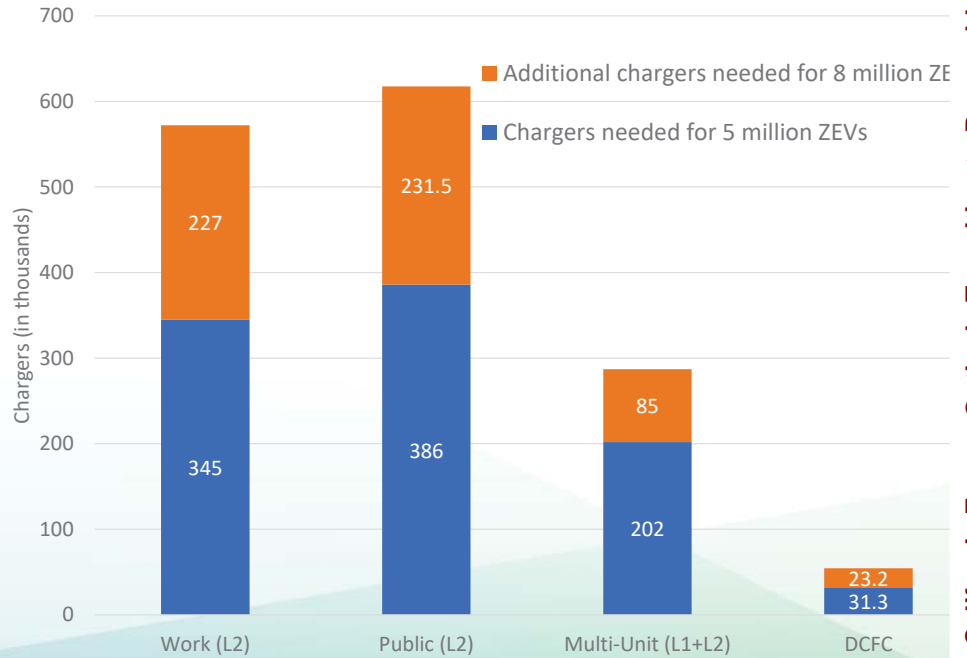
Electricity	
Year	Percent Reduction from Baseline Consumption due to AAEE/AAFS
2030	4%
2035	5%
2050	6%

Gas	
Year	Percent Reduction from Baseline Consumption due to AAEE/AAFS
2030	13%
2035	21%
2050	30%



Light Duty EV Charger Needs 2030

- About **1 million** chargers needed to support **5 million ZEVs**
- Over **1.5 million chargers** needed to support **8 million ZEVs**
- Does not include residential chargers at single-family homes



Thank you!

Aleecia Gutierrez
 Deputy Director, Energy Assessments Division
 California Energy Commission
 Aleecia.Gutierrez@energy.ca.gov



UC Riverside's CA ZEV Transition Research

SCAG Environment and Energy Committee
October 6, 2022

University of California-Riverside
Center for Environmental Research and Technology

<http://www.cert.ucr.edu>



CE-CERT is dedicated to addressing society's most pressing environmental challenges in air quality, climate change, energy and transportation through research, education and public service



150 student employees

60 faculty & engineers

\$ 30 million in ongoing research

30 laboratories and testbeds

SIGI – Sustainable Integrated Grid Initiative



About

SIGI was established as part of the WCGEC, is located at BCOE's Center for Environmental Research and Technology (CE-CERT) and is one of the largest integrated renewable energy projects of its kind in the state. A key component of the project is to demonstrate that electric vehicles can be seamlessly introduced into the existing grid system through "smart integration" of renewable energy, storage and advanced dispatch controls.

Key Project Features

Load Management

- Reduces risk of grid failure/blackout (due to decreased peaks)
- Increased predictability of demand (flattens peak demand)

Outage Prevention

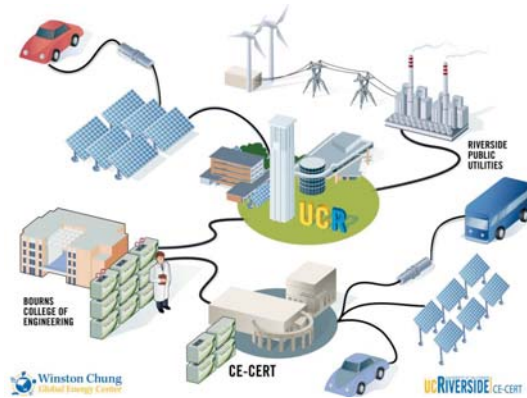
- Relieves stress on grid

Outage Support

- Battery dedicated to critical loads

Distributed Energy Resource Support

- Microgrids support distributed solar systems



Project Partners



SIGI: Battery Energy Storage System (BESS)



Winston Chung Hall

One megawatt-hour of battery energy storage was installed at UC Riverside's Winston Chung Hall. The system is physically comprised of two 500 kilowatt-hour systems; each with its own inverter, battery management system (BMS), and control hardware. The Princeton Power Systems bi-directional inverters are capable of charging the batteries at a rate of up to 95kW, and discharging at up to 100kW. The Battery Energy Systems BMS provides real-time data of the system, including pack state-of-charge, pack voltage, and pack current. The control hardware provides a gateway to inverter control, inverter data, and BMS data, and allows implementation of different control algorithms such as peak-shaving, and demand-response.



Winston Chung Hall: 1 MWh Lithium Iron Phosphate Battery at BCOE



CE-CERT's 500 kWh Stationary Battery System

CE-CERT Building 1200

500 kilowatt-hours of battery energy storage were installed in CE-CERT's 1200 building. This system has a similar design to the systems in Winston Chung Hall and uses the same components as well.



Mobile Renewable Backup Generation (MORBUG)

- Building microgrid support;
- Behind the meter energy optimization;
- Emergency power response;
- Coordinated community energy resiliency;
- Peak load mitigation;
- Demand responses;
- Islanding operations;
- V2G and V2B operations;



V2G Charger Specifications

- Util. Grid Connection: 480Vac, 3Ph, 44A Max
- Real Power: 30kW*
- Volt/VAR Optimization: -18kVAR-18kVAR
- Vehicle Voltage Range: 200Vdc-500Vdc
- Vehicle Charging Power†: 30 kW 60Adc Max
- Reverse Power Flow V2G†: 30 kW 60Adc Ma
- Vehicle Connection: SAE J1772-Combo CCS
- Energy Management Server (ESM) Connecti
- Ethernet, Modbus TCP/IP, SEP 2.0, MQTT

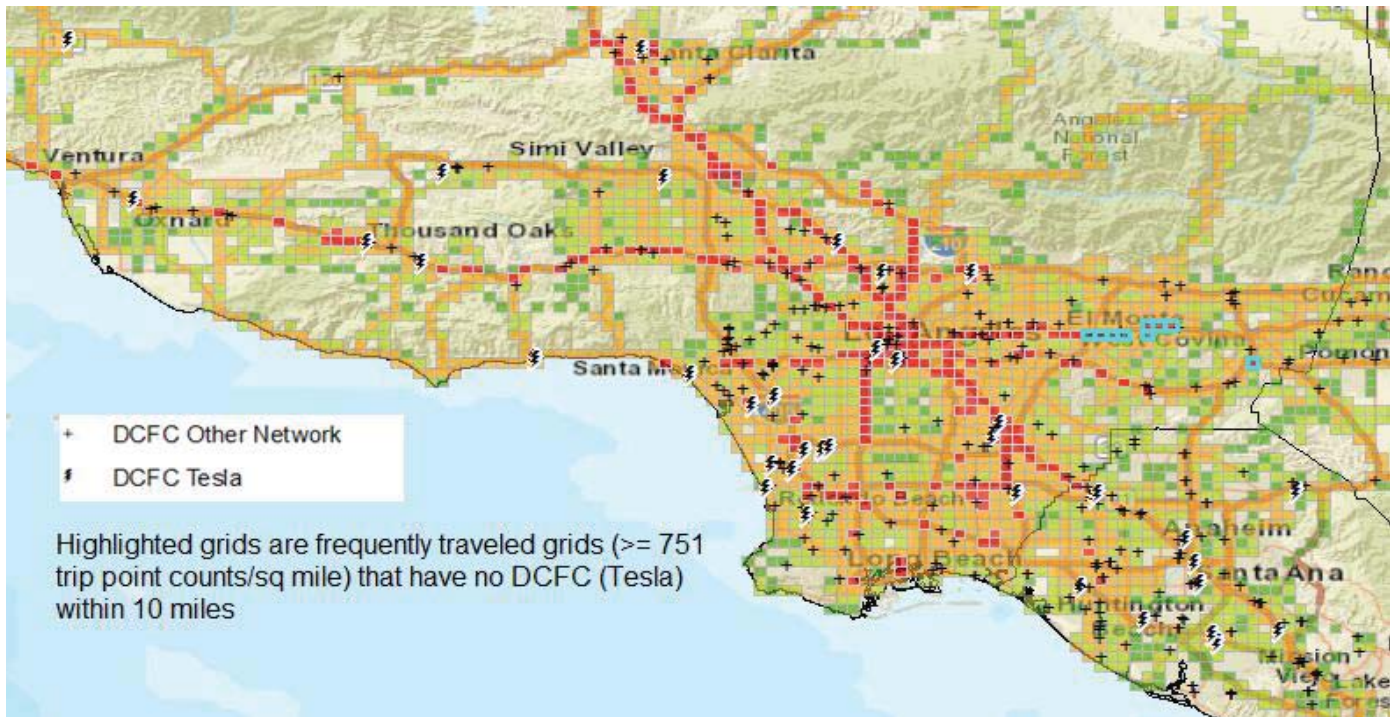
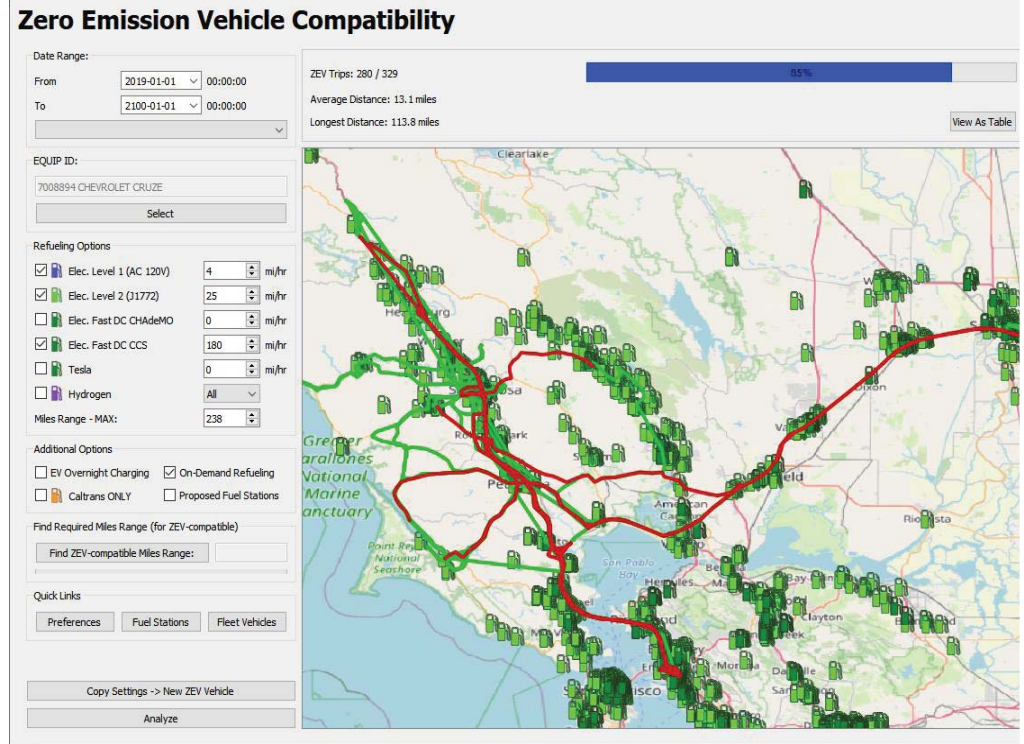
Islanding Demonstration with EV Charging Events



*Note:
Transformer 1: HVAC L
Transformer 2: EV Chair and Plug Loads

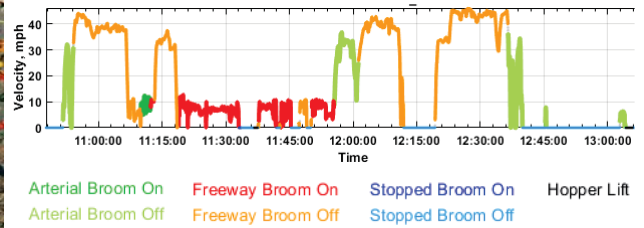
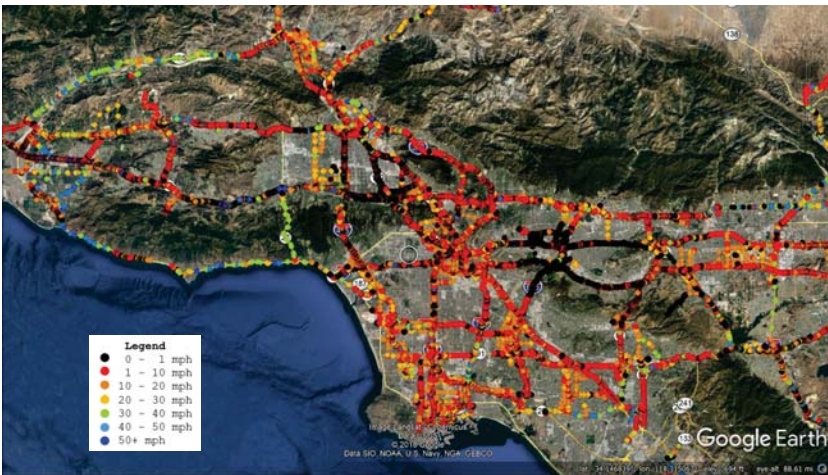


- ZEV compatibility
- Trip analysis
- Charging activity
- H2 refueling activity
- Vehicle range
- Charger type
- Opportunity charging
- Overnight charging
- LD/MD/HD
- BEV vs. H2
- Vehicle activity based

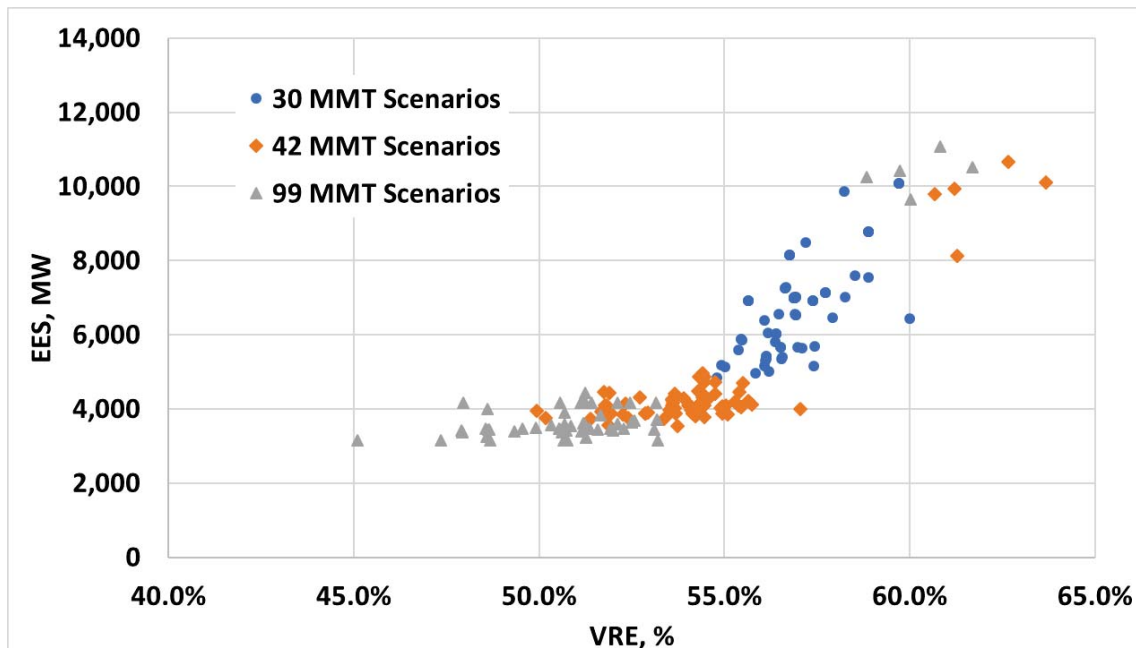




- UC Riverside independent evaluation
- Hydrogen Fuel Cell sweeper deployment
- Vehicle activity based performance evaluation
- Energy/emissions dyno evaluation
- Future evaluation of 18 BEV sweepers



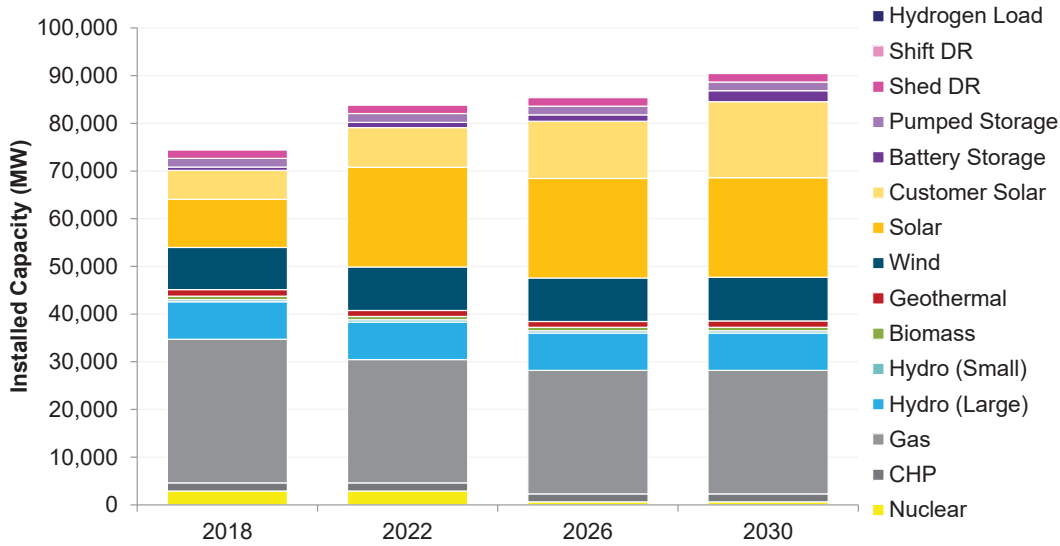
NCST: Electric Fleet Adoption Strategies – Addressing Storage and Infrastructure Needs Resolve Modeling Results





NCST: Electric Fleet Adoption Strategies – Addressing Storage and Infrastructure Needs
Resolve Modeling Results

- 50% RPS by 2030

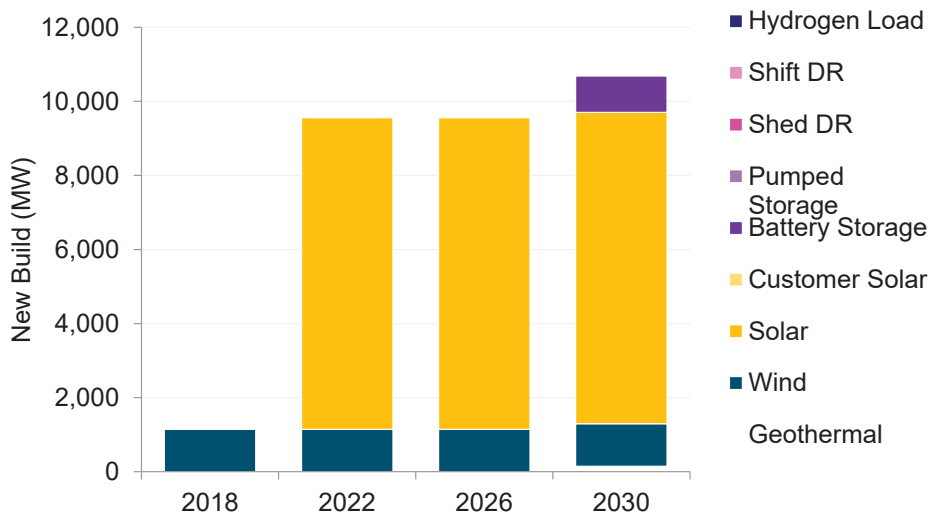


Total CAISO installed generating capacity



NCST: Electric Fleet Adoption Strategies – Addressing Storage and Infrastructure Needs
Resolve Modeling Results

- 50% RPS by 2030



Total CAISO new build



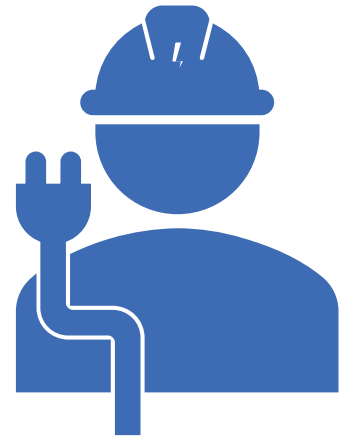
- Developing a blueprint for MD & HD ZEV infrastructure for the South Coast - CEC
- RHETTA - Research Hub from Electric Technologies in Truck Applications
- Fuel cell truck testing and evaluation - Cummins
- Develop microgrids with hydrogen production/storage capabilities – proposed to DOE and NSF
- Hydrogen station tied to SIGI microgrid - discussions
- Effects of hydrogen injection on natural pipeline infrastructure – CPUC, Hydrogen Hub
- Evaluation of BEV sweepers – Caltrans
- Lithium recovery and hydrogen production from the Salton Sea geothermal field – CEC, Berkshire Renewables
- Hydrogen production from biomass – CEC, Taylor Energy

Preparing the Grid for Transportation Electrification

Yuliya Shmidt, Advisor to
Commissioner Rechtschaffen

California Public Utilities
Commission

10-06-2022



Outline

Background

Planning for New
Electric Load

Additional Policy
Considerations

Background

California Public Utilities Commission



Role of California Public Utilities Commission (CPUC) and Utilities

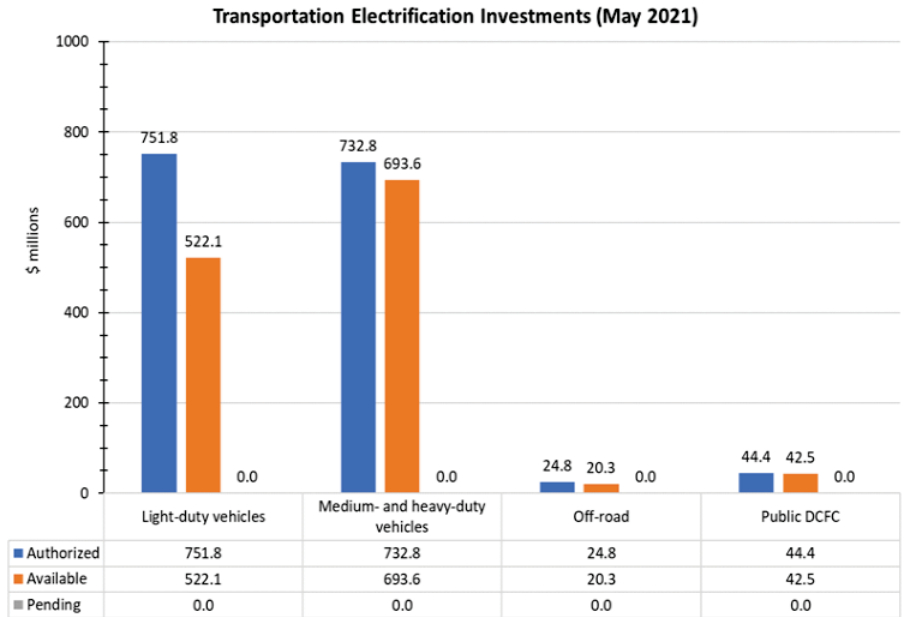
CPUC regulates investor-owned electric utilities (IOUs)

- Provide 78% of Californians with transmission and distribution infrastructure
- Provide half of Californians with electricity
- Regulated utilities are:
 - Large IOUs: PG&E, SCE, SDG&E
 - Small IOUs: Liberty, PacifiCorp, Bear Valley

Utilities have an “obligation to serve”

CPUC must ensure utilities charge “just and reasonable rates” and provide safe and reliable service

CPUC has authorized over \$1.5B in utility investment across dozens of programs of which ~18% have been spent



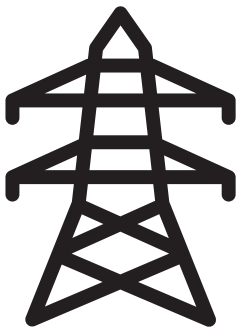
Electricity is Often Cheaper than Gasoline

IOU Territory	PG&E/SCE	SDG&E
Off-peak residential EV charging rate (\$/kWh)	\$ 0.13	\$ 0.24
EV fueling is roughly equivalent to (\$/gal)	\$ 1.12	\$ 2.07
% difference to charge EV than to fuel with gas	-72%	-48%
Total monthly EV fueling cost	\$ 45.50	\$ 84.00
Total monthly gasoline fueling cost	\$ 162.34	\$162.34

Planning for New Electric Load

California Public Utilities Commission

Transmission and Distribution for New Load



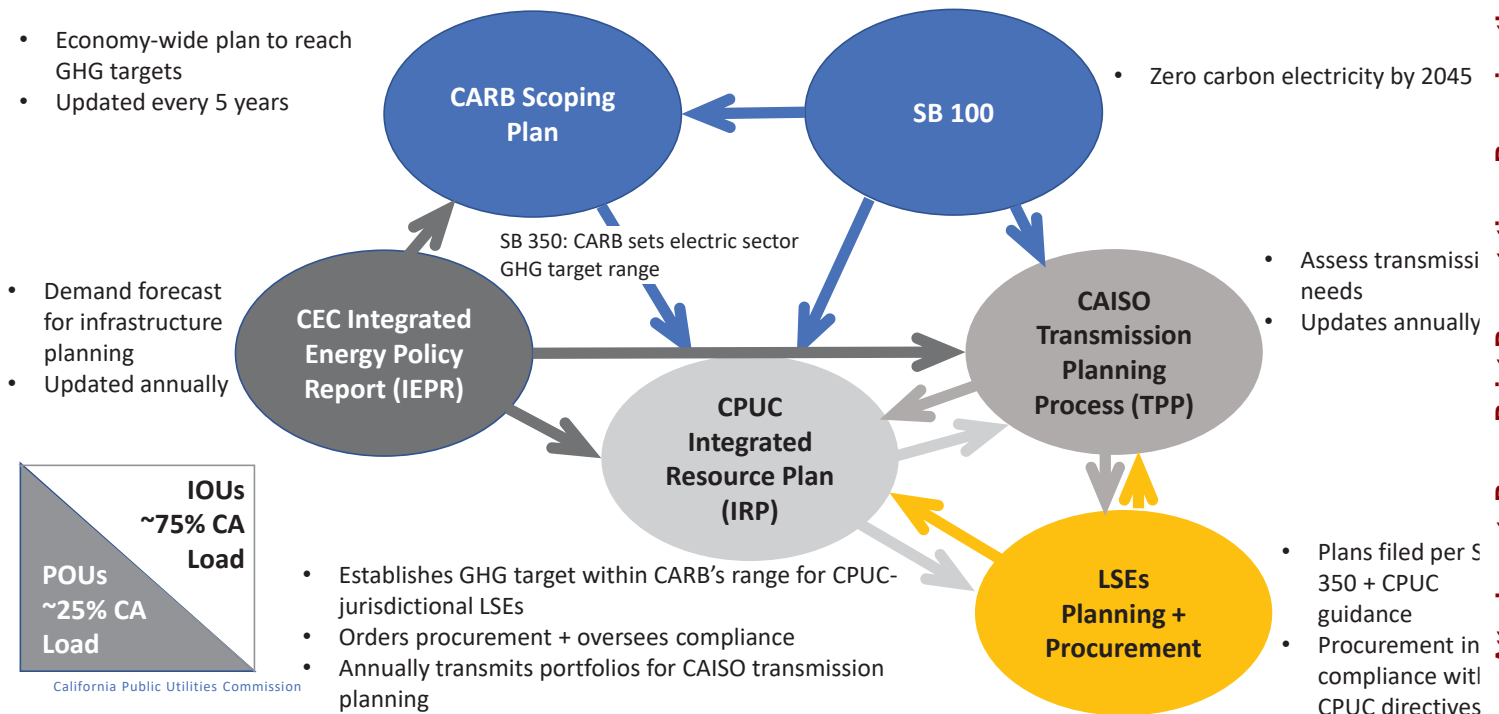
- **New interconnection requests**
 - New EV customers may request service under a new account or request expanded service under their current account
 - Utilities may need to study the proposed new load to determine if circuit upgrades or other work is necessary
 - CPUC has implemented AB841 (Ting, 2020) by approving utilities' new EV Infrastructure Rules which ensure that in EV customers will not pay for distribution upgrades for TE load
- **Distribution planning**
 - CPUC has launched a new Rulemaking to study and plan for future new load with a focus on TE
- **Transmission planning**
 - The California Independent System Operator studies the electric grid biannually -- using a demand forecast that incorporates TE -- to determine if new transmission is necessary

Generation Planning for New Load



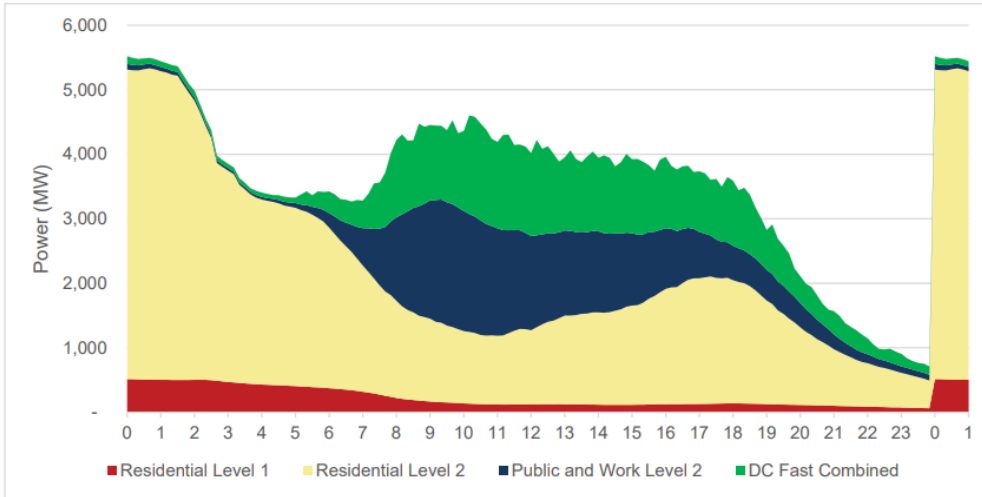
- CPUC plans for new generation using a complex ten-year process, Integrated Resource Planning (IRP)
- Demand is forecasted ten years out and the electric grid is modeled using production cost modeling and capacity expansion software
 - Every hour of the year is studied under a variety of scenarios to ensure electric reliability
- If additional capacity is necessary to ensure reliability, the CPUC orders that load-serving entities procure new generation or storage resources

California's Electricity Planning Processes



EV demand not expected to be a large portion of total load

Figure 2: Projected Statewide Power for Light-Duty Charging for 8 Million ZEVs on a Typical 2030 Weekday

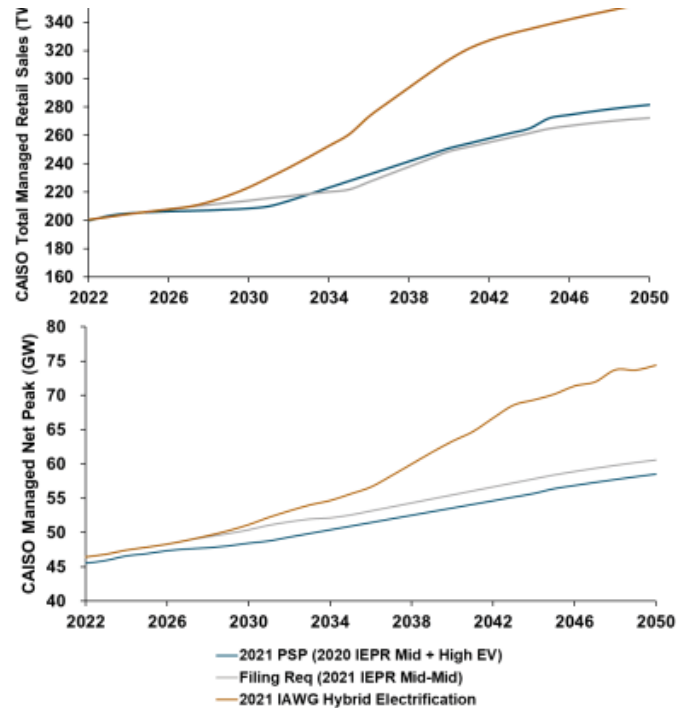


For Comparison:
Recent record-breaking peak load was **52,061MW** at 4:57pm on Tuesday, September 6, 2022

California Public Utilities Commission

Source: CEC's AB2127 EV Charging Infrastructure Assessment

Estimates of Load Growth

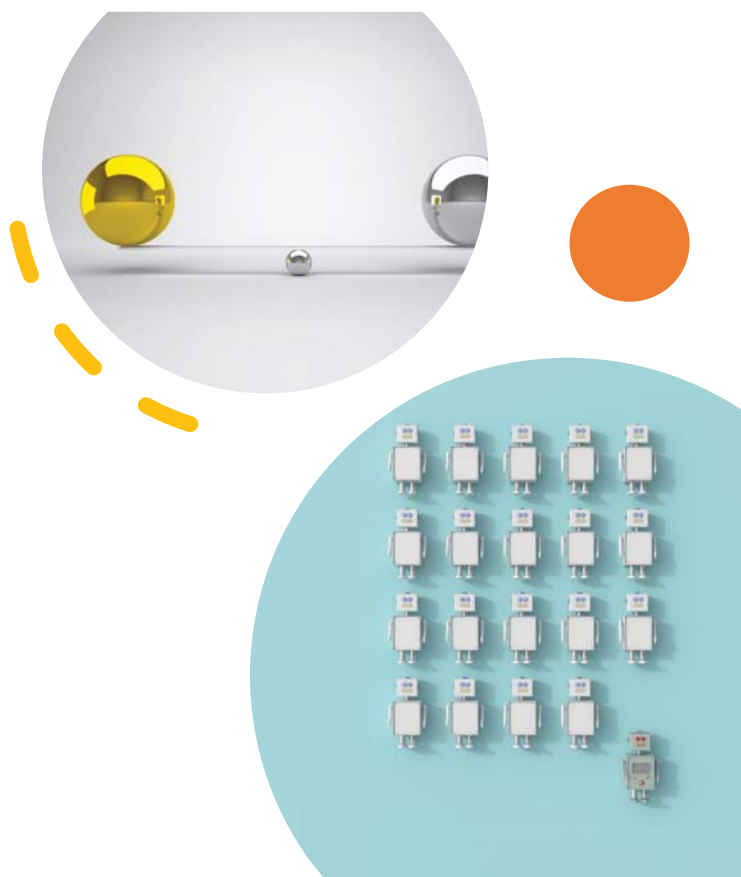


Additional Policy Considerations

California Public Utilities Commission

Equity

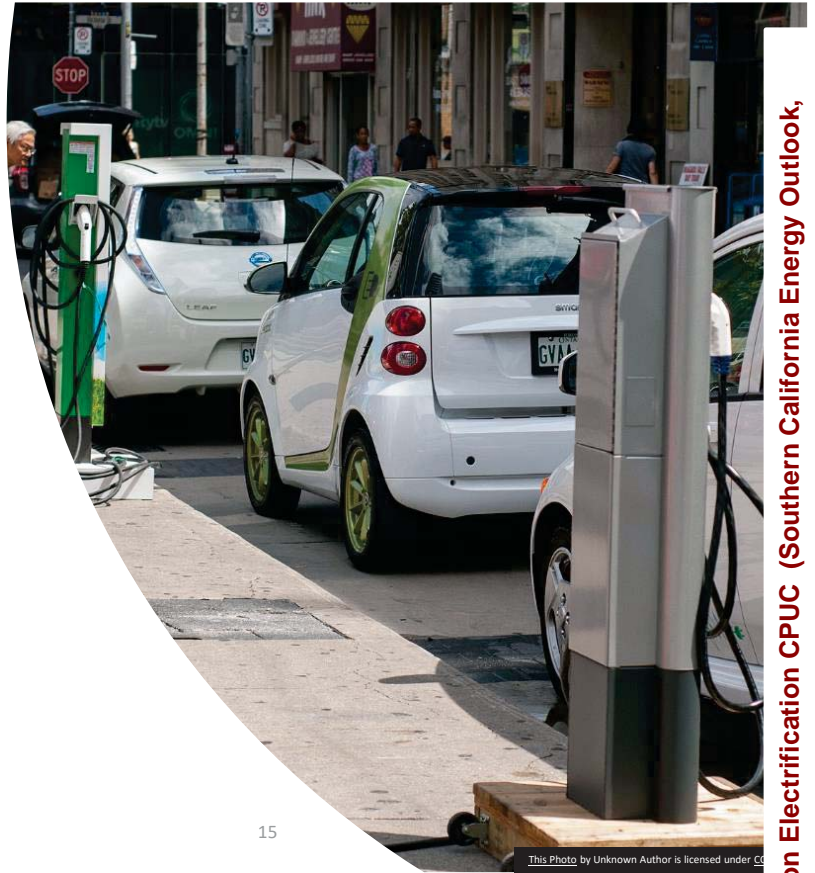
- Governor Newsom’s Executive Order N-79-20 prioritizes TE accessibility for disadvantaged and low-income communities
- CPUC’s Environmental and Social Justice Action Plan, adopted February 2019, established agency goals including improving outreach and public participation, promoting economic and workforce opportunities, and improving access to services and programs
- CPUC-approved programs direct 25-50% of investment to disadvantaged communities as defined by CalEnviroScreen, which considers pollution levels, income and other socio-economic factors



Vehicle Grid Integration: crucial to TE development

VGI is an umbrella term for a host of measures and behaviors that better integrate EV charging with the electric grid

- VGI: smart charging (i.e. charging that is responsive to TOU or dynamic price signals)
- Vehicle-to-Grid (V2G): vehicle batteries feeding power back to the grid
- Vehicle-to-Home (V2H) or Vehicle-to-Load (V2L): vehicle batteries providing power to home or other customer electric load for example during power outages



Benefits of VGI

Reduce grid impact or even create grid benefit from additional electric load.

Deliver grid services by providing power back to the grid during needed times

Reduce customer cost of charging by allowing drivers to employ managed charging

Reduce customer cost of ownership by allowing drivers to earn revenue from their cars.



California Public Utilities Commission

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Grid Resiliency and Reliability

Building a Reliable Clean Energy Future

by

Zanku Armenian
Director, Public Affairs

SCAG Energy and Environment Committee
October 6, 2022



Strengthening and Modernizing the Grid

SCE plans to spend more than \$5B each year to maintain, improve, and harden its infrastructure

- **Infrastructure reliability** – updating underground cables, poles, switches, and transformers
- **Wildfire mitigation** – hardening infrastructure, bolstering situational awareness capabilities, and enhancing operational practices
- **Transmission** – connecting renewables, installing new substations, and updating lines
- **Distribution** – automation and cutovers to allow for two-way power delivery
- **Grid readiness** – updating the grid for impacts from new technologies
- **Long-term energy policy** – supporting energy storage, electric vehicles, and renewables

SCE's investments support safe, reliable, affordable, and clean energy for our customers

Energy for What's Ahead™

1

Grid Readiness

Generation

- Actively managed hydro facilities' water supply to maximize availability during high heat months
- Over **7,500 MW** of new generation online in past year statewide

Demand Response

- Compensate customers for providing a temporary reduction in demand
- SCE has enrolled almost **1.9M** new customers

Transmission

- Completed enhancements to key transmission and substation facilities to improve ability to reroute power

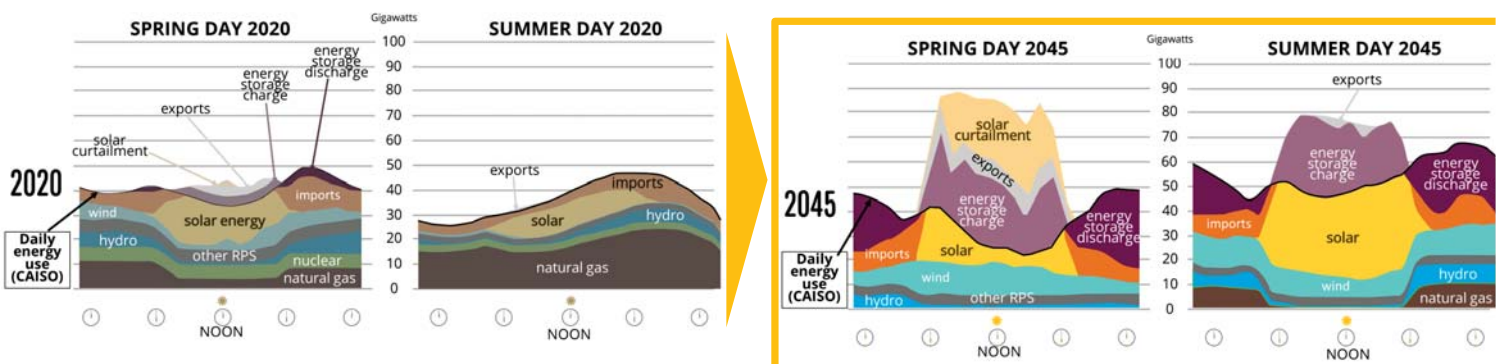
Energy Storage

- As of Q1 2022, SCE has **1,382 MW** of storage owned or under contract
- ~4,000 MW of storage is available statewide (up from 200 MW in 2020)
- Expanding use of virtual power plants that tap into customer-owned batteries



Energy for What's Ahead™

Grid Challenges in 2024



2045 will see a **60% increase in electricity demand** and **40% increase in peak load**.

The grid will need to integrate large amounts of utility-scale variable resources at the transmission level, including **80 GW of wind and solar, and 30 GW of storage CA-wide**.

At the distribution level, the grid will need to interconnect large amounts of customer-sited resources – **an additional 30 GW of solar and 10 GW of storage CA-wide**.

Energy for What's Ahead™

Key Drivers of the Grid of the Future

SUPPLY



- **Very high level of renewables** (intermittent and away from load centers)
- Power system reaching **critically low level of inertia** due to gas retirements

CUSTOMER



- **Large adoption of DERs** dominating distribution level circuits
- **Significant changes in load density** due to urbanization, EV charging, etc.
- **More end uses that are sensitive to power quality** (e.g., power electronics)
- Overall, **increased reliance on electricity**

CLIMATE



- Growing impacts to **performance of grid assets** under climate stress
- Climate-driven changes in **customer needs and electric service continuity**

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The Benefits of Electrification

Climate Change

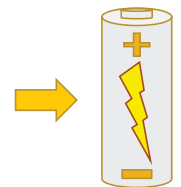
- The severe weather events stressing the grid are **exacerbated by continued fossil fuel use**
- Electric technologies offer **immediate GHG reductions** (and air quality improvements!) that increase over time as the grid decarbonizes

Flexible Load

- Electric technologies are **incredibly flexible**, which helps the grid
- Tremendous potential for EVs and heat pump water heaters to **provide grid support services**

Energy Affordability

- Electric technologies are affordable to operate – often **cheaper than fossil fuel** equivalents
- Electric technologies improve asset utilization – they **make electricity rates less expensive** for everyone



Energy for What's Ahead™

Reducing Wildfire Risk & PSPS Impacts – By the Numbers

SCE estimates its wildfire mitigation and PSPS measures have reduced the risk of damage from catastrophic¹ wildfires by **65% to 70%**, relative to pre-2018 levels.



ONGOING WILDFIRE MITIGATION EFFORTS

~**30%** of overhead wires in high fire risk areas installed with covered conductor

Suite of mitigations include system hardening, inspections, vegetation management and situational awareness measures



IMPROVED PSPS EXECUTION & CUSTOMER SUPPORT

73% reduction in PSPS outage time in 2021 on frequently impacted circuits²

81,000 customers removed from scope from exceptions and switching protocols

64 Community Resource Centers available



AERIAL FIRE SUPPRESSION SUPPORT

Contributed \$18 million for the creation of the quick reaction force of the world's largest helitankers

Used on more than 50 fires in 2021, helping to suppress fires in its early stages

1. A wildfire directly causing one or more deaths, damaging or destroying more than 500 structures, or burning more than 140,000 acres of land
2. Based on 2021 weather and fuel conditions

Energy for What's Ahead™

Questions



Energy for What's Ahead™



AGENDA ITEM 6
REPORT

Southern California Association of Governments
Hybrid (In-Person and Remote Participation)
900 Wilshire Boulevard, Suite 1700 - Policy A Meeting Room
Los Angeles, CA 90017
October 6, 2022

To: Transportation Committee (TC)
Energy and Environment Committee (EEC)

**EXECUTIVE DIRECTOR'S
APPROVAL**

From: Alison Linder, Senior Planner
(213) 236-1934, linder@scag.ca.gov

Subject: Lithium-Ion Battery Reuse, Recycling and Safe Disposal - Findings from
the CA Lithium-Ion Battery Recycling Advisory Group

RECOMMENDED ACTION FOR EEC:
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:
Alissa Kendal, Professor, Department of Civil and Environmental Engineering, UC Davis, will give a presentation covering the activities of the Lithium-Ion Car Battery Recycling Advisory Group. The committee addressed the need for sound policies to support end of life reuse, recycling, and safe disposal for the batteries in zero emission battery electric vehicles and submitted a report with policy recommendations to the state legislature earlier in 2022. The SCAG legislative platform, approved by the Regional Council on February 3, 2022, includes a principle that supports taking a life cycle approach to the development and deployment of zero emission and alternative fuel vehicles and their supporting infrastructure. This principle specifically states that for electric vehicles SCAG shall "support policies that ensure that proper battery reuse, recycling, and disposal are in place." Dr. Kendal will offer additional background and share recommendations on this challenge. The final policy recommendations are available at <https://calepa.ca.gov/lithium-ion-car-battery-recycling-advisory-group/>.

BACKGROUND:
The 2020 Connect SoCal Plan puts forth a long-term vision for a decarbonized, primarily zero emission transportation system. The Plan included battery powered zero emission vehicles (ZEV) as one of many promising technologies that assist in achieving this vision. As of February 2022, ZEVs

represented 12% of all vehicles sold in the state, and the Advanced Clean Cars Rule II approved by CARB on August 25, 2022, mandated that 100% of passenger vehicles sold by 2035 will be zero emission.

Furthermore, the SCAG legislative platform approved by the Regional Council on February 3, 2022, includes a principle that supports taking a life cycle approach to the development and deployment of zero emission and alternative fuel vehicles and their supporting infrastructure. This principle specifically states that for electric vehicles SCAG shall “support policies that ensure that proper battery reuse, recycling, and disposal are in place.” This presentation, therefore, offers additional background surrounding these issues and shares the recommendations of the Lithium-Ion Car Battery Recycling Advisory Group focused on this issue.

Battery end of life management requires attention for several reasons. ZEVs have different characteristics than conventional combustion engines and a lithium-ion battery can be dangerous if disposed of improperly. The minerals and materials (often referred to as critical materials) used within a lithium-ion battery are rare and the extraction processes could be damaging to the environment and surrounding communities. Currently, the majority of critical materials are extracted overseas and California and the Nation as whole may potentially face supply issues, due to increasing global demand, uncertainty in trade agreements, and supply chain/logistical problems (as witnessed during the COVID-19 pandemic). To mitigate logistical uncertainties and environmental impacts from extracting raw materials, there is a potential to recycle and extract critical materials from retired lithium-ion batteries.

In 2018, AB 2832 dictated a process for selecting participants for the composition of the Advisory Group and required submission of a report at the end of the process. As such, the Advisory Group submitted policy recommendations to the Legislature to ensure “...that as close to 100% as possible of lithium-ion batteries in the state are reused or recycled at end-of-life.” SCAG staff, Alison Linder, Senior Regional Planner, served as a committee member and chair of the Reuse Subcommittee from November 2019 – March 2022.

The committee developed recommendations in four primary areas including:

- Designation of end of life responsibility
- Access to battery information
- Economic opportunities around reuse and recycling industry development
- Safe and efficient reverse logistics

First, there was a need to designate responsibility for the battery at end of life. The report describes that no party is currently required to coordinate and pay for the collection, transportation, and processing of retired out-of-warranty batteries, which could create “stranded batteries” if individual consumers or small operations end up in possession of LIBs that they do not have the resources to dispose of properly. Without a mechanism to collect stranded batteries, they

may be unsafely accumulated, illegally abandoned, or improperly managed domestically and abroad. Two policies were recommended by the committee to address this. The first is a Core Exchange with Vehicle Backstop which requires either the dismantler or the EV manufacturer to take responsibility, and a Producer Take Back program which require the auto manufacturer to take responsibility for arranging reverse logistics, covering recycling costs and proper documentation. These recommendations are similar to extended producer responsibility programs which have been successfully implemented abroad.

Additional recommendations were developed: to increase access to battery information through physical labeling, digital identifiers, and universal diagnostic systems; to support development of an in-state repurposing, reuse, and recycling industry; and to increase the safety and efficiency of reverse logistics through enforcement of unlicensed dismantling laws, universal waste regulation and additional training.

The committee was led by the California Environmental Protection Agency (CalEPA), the Department of Toxic Substances Control (DTSC), and the Department for Resources Recycling and Recovery (CalRecycle). In accordance with AB 2832, a report was submitted to the legislature. Additional policy development is needed to advance solutions for safe battery reuse, recycling, and disposal.

For more information, the report may be found here: https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/2022_AB-2832_Lithium-Ion-Car-Battery-Recycling-Advisory-Goup-Final-Report.pdf.

Additional information about the advisory group may be found at: <https://calepa.ca.gov/lithium-ion-car-battery-recycling-advisory-group/>.

FISCAL IMPACT:

None.

ATTACHMENT(S):

1. PowerPoint Presentation - AB 2832



Policy recommendations and findings from the CA Lithium-Ion Battery Recycling Advisory Group

Dr. Alissa Kendall, UC Davis Civil & Environmental Engineering
Jessica Dunn, Energy and Efficiency Institute
Meg Slattery, Energy and Efficiency Institute



Agenda

- 1) Background information
 - a) California Assembly Bill 2832
 - b) Lithium-Ion Battery Recycling Advisory Group
- 2) Advisory group process for developing policy recommendations
- 3) Recommended policies
- 4) Industry development and research



California Assembly Bill 2832

In 2018, California Assembly Bill 2832 required the convening of the Lithium-Ion Battery Recycling Advisory Group whose mandate includes submission of policy recommendations to the Legislature to ensure “...that as close to 100% as possible of lithium-ion batteries in the state are reused or recycled at end-of-life” (Dahle, 2018)



Our team at UC Davis provided research support and facilitation for the advisory group



Alissa Kendall, PhD
Professor, Civil and Environmental Engineering;
Chair, Energy Graduate Group



Jessica Dunn, MS
PhD Candidate, Energy Systems



Meg Slattery, MS
PhD Student, Energy Systems
Affiliate, Lawrence Berkeley National Lab

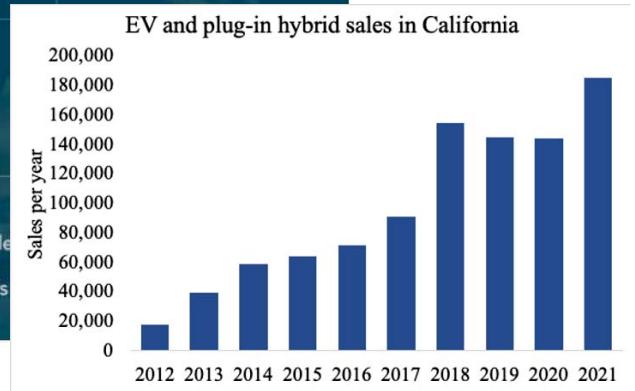


Hanjiro Ambrose, PhD
Postdoc, UC Davis
Engineer, Air Resources Board





California is the national leader in EV uptake



Source: <https://www.gov.ca.gov/2022/02/25/california-leads-the-nations-zev-market-surpassing-1-million-electric-vehicles-sold/>



Why was this bill necessary?



- Retired EVs require different disposal and recycling than internal combustion engines
 - A lithium-ion battery is potentially dangerous if disposed of improperly
- Battery manufacturing is material intensive
 - Recycling old batteries provides an alternative source of critical materials
 - If recycling is done domestically, reduces dependency on foreign sources
- Mining of materials creates environmental and social issues
 - Recycling has the potential to reduce the amount of virgin materials required, thus reducing impacts





Lithium-Ion Battery Recycling Advisory Group

The advisory group consisted of 19 members from the automotive and battery industries, waste management, government agencies, and public interest organizations



Process for developing policy recommendations

- November, 2019 through December, 2020 was dedicated to knowledge-building. The Advisory Group heard presentations from the UC Davis researchers along with invited speakers from academia, industry, and government agencies.
- January, 2021 through March, 2022 was dedicated to policy development

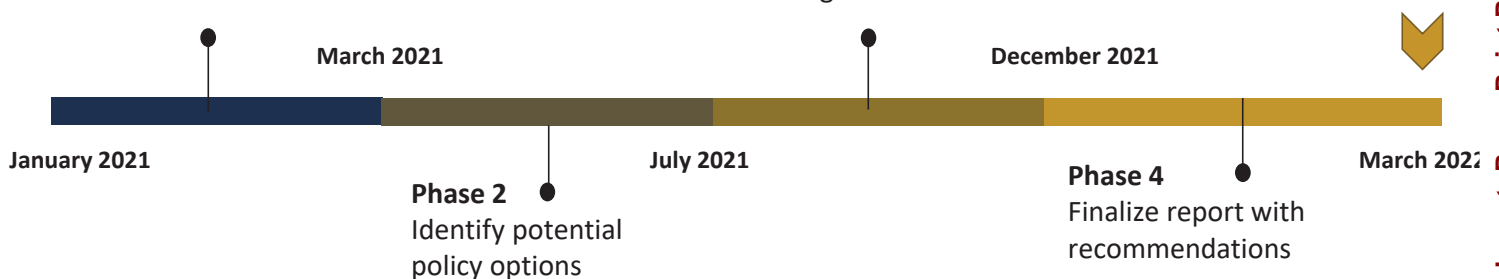
Phase 1

Identify barriers, opportunities, and existing landscape

Phase 3

Incorporate feedback and create rough draft

Final report





Primary Objectives

Responsibility of the battery at end-of-life emerged as the key concern for the Advisory Group

Additional areas of concern included...

- Increasing access to battery information
- Supporting repurposing, reuse, and recycling industry development
- Increasing the safety and efficiency of reverse logistics



Policy Recommendations for Determining Responsibility

Currently, no party is required to coordinate and pay for the collection, transportation, and processing of retired out-of-warranty batteries

- The pathway depends on the economic value and feasibility of reuse and/or recycling

Two versions of Extended Producer Responsibility (EPR) were recommended.

- Core exchange and vehicle backstop (*93% support by the advisory group (AG)*)
- Producer take-back (*67% support by AG*)





Determining Responsibility Policy Recommendations

Core exchange and vehicle backstop	Producer take-back
<p>For batteries replaced before EV reaches end-of-life</p> <ul style="list-style-type: none"> ● A core exchange program shall be used for the replacement battery <p>For EVs reaching end-of-life</p> <ul style="list-style-type: none"> ● If removed from vehicle by dismantler, the dismantler is responsible for ensuring the battery is properly recycled ● If an EOL EV is not acquired and removed by a licensed dismantler, the vehicle manufacturer shall be responsible for ensuring that the vehicle is properly recycled 	<p>The auto manufacturer is responsible to ensure proper recycling of the battery at no cost to the consumer. Responsibility includes</p> <ul style="list-style-type: none"> ● Arranging reverse logistics to transport the batteries ● Covering recycling costs ● Documenting the proper disposal of the battery



Access to information - identified barriers

Lack of access to information about battery packs is a barrier to safely and efficiently transporting, reusing, and recycling batteries at EOL

- The party removing the battery needs information about
 - the battery condition, to determine the next suitable use and whether any extra precautions are necessary
 - how to safely remove, handle, store, and ship high voltage batteries
- Reuse, refurbishing, or repurposing company needs information about the battery's SOH to ensure quality and provide performance guarantees
- Recyclers need to know the chemistry to sort batteries and process them at maximum efficiency





Access to Information

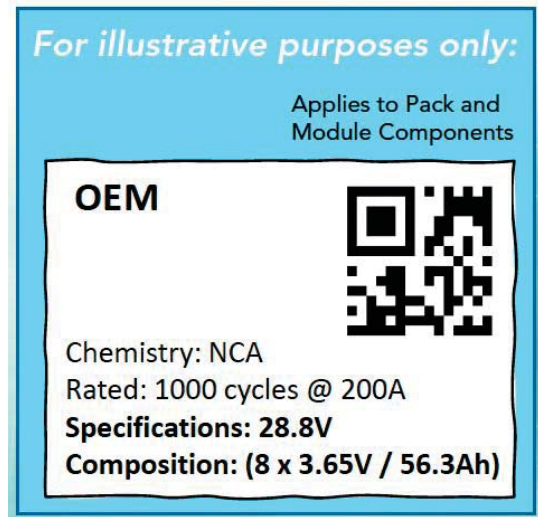
Policy	Purpose	Level of support (%)
Physical labeling requirement	Facilitate sorting to improve process efficiency; enable easy identification of battery/vehicle OEM	93%
Digital identifier	Identify LIB chemistry at EOL; identify responsible party for safe disposal; improve safety during disassembly	87%
Universal diagnostic system	Reduce cost of testing; enable performance guarantees for reused and repurposed batteries	53%



CARB Advanced Clean Cars II regulation

1962.6 Battery Labeling Requirements

- A. Company name of the vehicle and battery manufacturer
- B. Date of manufacture
- C. Identification of cathode chemistry, represented by a standard abbreviation
- D. Rated system voltage and cell voltage
- E. Count of individual cells in the labeled unit
- F. Rated capacity of the unit measured under existing life cycle testing standard (SAE J2288_202011)
- G. A digital identifier, linked to a data repository website



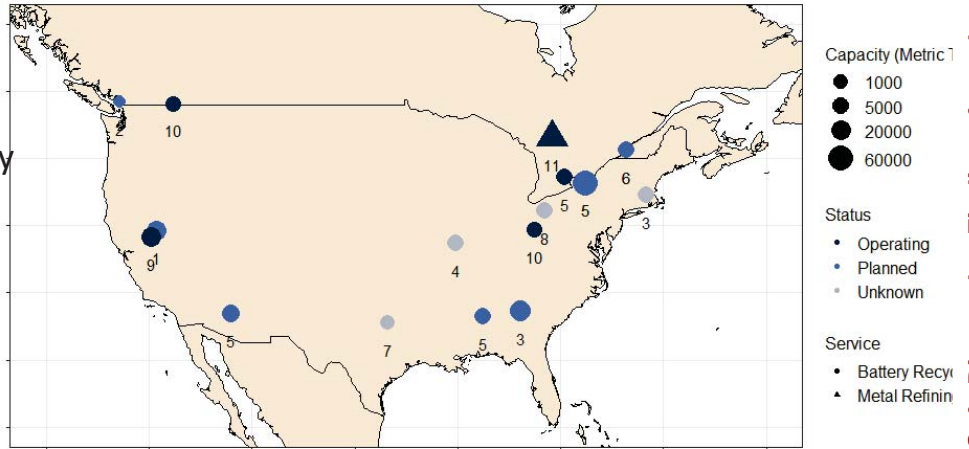
Source and additional information: <https://ww2.arb.ca.gov/sites/default/files/2021-12/draft%20zev%20battery%20label%201962.6%20posted.pdf>



Repurposing, reuse, and recycling industry development - identified barriers

- Long / unknown permitting process in California
- Upfront cost of recycling facility development
- Cost competitiveness and lifetime guarantees of reused, refurbished, remanufactured batteries

Recycling Facilities in the US and Canada



Support repurposing, reuse, and recycling industry development

Policy	Purpose	Level of support (%)
Recycling incentive packages	Mitigate upfront capital costs; encourage recycling within California	73%
DTSC permit timeline	Reduce cost of locating processing facilities within California	60%
Expand eligibility for battery storage systems	Enable cost-competitiveness with new batteries	67%



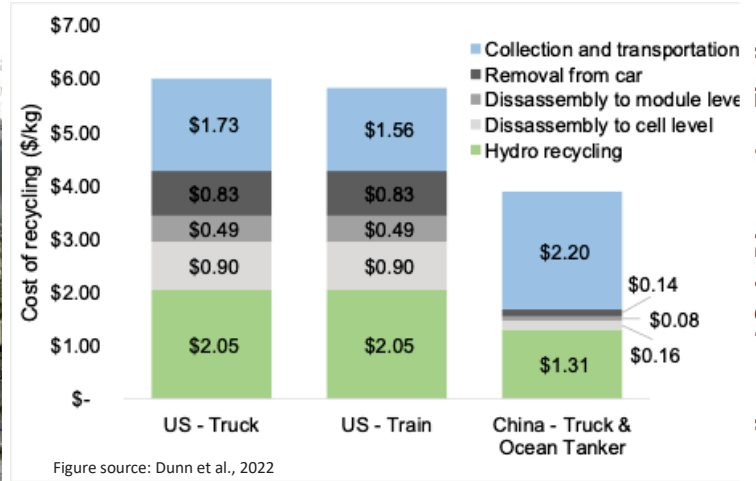


Safe and efficient reverse logistics - identified barriers

- Safety risks
 - Flammability, thermal runaway
- Cost of transportation
 - Represents about 50 - 60% of total recycling cost (Slattery et al., 2021)
- Location of EVs at end-of-life is unclear



Image source: <https://www.nbcnews.com/business/autos/federal-regulators-warn-risks-firefighters-electrical-vehicle-fires-n1271084>



Safe and efficient reverse logistics

Policy	Purpose	Level of support (%)
Support enforcement of unlicensed dismantling laws	Prevent environmental hazards and stranded batteries due to unlicensed dismantling	87%
Develop training materials	Improve safety and workforce capacity	93%
Support transportation research	Reduce transportation cost	100%
Develop strategic collection and sorting infrastructure	Reduce transportation cost	93%
Universal waste regulations	Reduce transportation cost and administrative burden	100%
Require pre-approval to bid on EVs at auctions	Enable tracking of EVs purchased at auctions	60%



Policies that did not receive majority support

Circular economy and quality recycling

- Recycled content standards
- Minimum material recovery targets
- Third-party verification
- Require design for reuse and recycling
- Reporting system for EV batteries retired from use
- Reporting system for LIB recycling and recovery rates

Support industry development

- Disassembly incentive packages



Thank you!

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