SCAG
INNOVATING FOR A BETTER TOMORROW

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

MEETING OF THE

ENERGY AND ENVIRONMENT COMMITTEE

Members of the Public are Welcome to Attend In-Person & Remotely

Thursday, June 4, 2026

9:30 a.m. – 11:15 a.m.

To Attend In-Person:

SCAG Main Office – Policy A Meeting Room
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017

To Watch or View Only:

https://scag.ca.gov/scag-tv-livestream

To Attend and Participate on Your Computer:

https://scag.zoom.us/j/81703196837

To Attend and Participate by Phone:

Call-in Number: 1-669-900-6833
Meeting ID: 817 0319 6837

PUBLIC ADVISORY

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 to participate in this meeting. SCAG is also committed to helping people with limited proficiency in the English language access the agency's essential public information and services. You can request such assistance by calling (213) 236-1895. 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 Attending the Meeting

To Attend In-Peron and Provide Verbal Comments: Go to the SCAG Main Office located at 900 Wilshire Blvd., Ste. 1700, Los Angeles, CA 90017 or any of the remote locations noticed in the agenda. The meeting will take place in the Policy A Meeting Room on the 17th floor starting at 9:30 a.m.

To Attend by Computer: Click the following link: https://scag.zoom.us/j/81703196837. 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. Select "Join Audio via Computer." 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.

To Attend by Phone: Call **(669) 900-6833** to access the conference room. Given high call volumes recently experienced by Zoom, please continue dialing until you connect successfully. Enter the **Meeting ID:** 817 0319 6837, followed by **#**. Indicate that you are a participant by pressing **#** to continue. You will hear audio of the meeting in progress. Remain on the line if the meeting has not yet started.

Instructions for Participating and Public Comments

Members of the public can participate in the meeting via written or verbal comments.

In Writing: Written comments can be emailed to: ePublicComment@scag.ca.gov. Written comments received **by 5pm on Wednesday, June 3, 2026** will be transmitted to members of the legislative body and posted on SCAG's website prior to the meeting. 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. Written comments received after 5pm on Wednesday, June 3, 2026, will be announced and included as part of the official record of the meeting. Any writings or documents provided to a majority of this committee regarding any item on this agenda (other than writings legally exempt from public disclosure) are available at the Office of the Clerk, at 900 Wilshire Blvd., Suite 1700, Los Angeles, CA 90017 or by phone at (213) 630-1420, or email to aguilarm@scag.ca.gov.

Remotely: If participating in real time via Zoom or phone, please wait for the presiding officer to call the item for which you wish to speak and use the "raise hand" function on your computer or *9 by phone and wait for SCAG staff to announce your name/phone number.

In-Person: If participating in-person, you are invited but not required, to fill out and present a Public Comment Card to the Clerk of the Board or other SCAG staff prior to speaking. It is helpful to indicate whether you wish to speak during the Public Comment Period (Matters Not on the Agenda) and/or on an item listed on the agenda.

General Information for Public Comments

Verbal comments can be presented in real time during the meeting. Members of the public are allowed a total of 3 minutes for verbal comments. The presiding officer retains discretion to adjust time limits as necessary to ensure efficient and orderly conduct of the meeting, including equally reducing the time of all comments.

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.

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.

TELECONFERENCE AVAILABLE AT THESE ADDITIONAL LOCATIONS*

Ana Beltran America's Best Value Inn Lobby 351 W. Main Street Westmorland, CA 92281	**Art Bishop** Town of Apple Valley - Town Hall 14955 Dale Evans Pkwy Conference Room A Apple Valley, CA 92307	**Daniel Brotman** City of Glendale - City Hall 613 E Broadway, Suite 200 Glendale, CA 91206
Robert D. Copeland City of Signal Hill - City Hall 2175 Cherry Avenue Council Chambers Signal Hill, CA 90755	**Ned E. Davis** City of Westlake Village - City Hall 31200 Oak Crest Drive Westlake Village, CA 91361	**Carmen Hernandez** City of Barstow - City Hall 220 E. Mountain View Barstow, CA 92311
Shari L. Horne City of Laguna Woods - City Hall 24264 El Toro Road Laguna Woods, CA 92637	**Britt Huff** City of Rolling Hills Estates - City Hall 4045 Palos Verdes Drive North Rolling Hills Estates CA, 90274	**Brian Johsz** 5615 Gableview Court Chino Hills, CA 91709
Steven Leash Cahuilla Band of Indians 52701 Hwy 371 Anza, CA 92539	**Elaine Litster** City of Simi Valley - City Hall 2929 Tapo Canyon Road Simi Valley, CA 93063	**Jeannette Sanchez-Palacios** Ventura City Hall Anacapa Conference Room 501 Poli street Ventura, CA 93001
Patty Senecal City of Seal Beach - City Hall 211 8th Street Seal Beach, CA 90740	**Jennifer Stark** City of Claremont - City Hall 207 Harvard Avenue 2nd Floor Citrus Room Claremont, CA 91711	**Ali Taj** 11856 E. 187th Street Artesia CA 90701
Connor Traut 7661 Silver Street Buena Park, CA 90620	**Dale Welty** City of Canyon Lake - City Hall 31526 Railroad Canyon Road Canyon Lake, CA 92584	

* Under the teleconferencing rules of the Brown Act, members of the body may remotely participate at any location specified above.

EEC - Energy and Environment Committee
Members –June 2026

1. **Hon. Rick Denison**
   EEC Chair, Yucca Valley, RC District 11

2. **Hon. Daniel Ramos**
   EEC Vice Chair, Adelanto, RC District 65

3. **Hon. Ana Beltran**
   Westmorland, ICTC

4. **Hon. Arthur Bishop**
   Apple Valley, SBCTA

5. **Hon. Daniel Brotman**
   Glendale, AVCJPA

6. **Sup. Martha Cardenas-Singh**
   Imperial County

7. **Hon. Margaret Clark**
   Rosemead, Pres. Appt. (Member at Large)

8. **Hon. Robert Copeland**
   Signal Hill, GCCOG

9. **Hon. Jenny Crosswhite**
   Santa Paula, RC District 47

10. **Hon. Ned Davis**
    Westlake Village, LVMCOG

11. **Victoria Garcia**
    San Fernando, Pres. Appt. (Member at Large)

12. **Hon. Carmen Hernandez**
    Barstow, SBCTA

13. **Hon. Shari Horne**
    Laguna Woods, OCCOG

14. **Hon. Britt Huff**
    Rolling Hills Estates, SBCCOG

15. **Hon. Brian Johsz**
    Chino Hills, SBCTA

16. **Hon. Joe Kalmick**
    Seal Beach, RC District 20

17. **Hon. Steven Leash**
    Cahuilla Band of Indians

18. **Hon. Elaine Litster**
    Simi Valley, VCOG

19. **Hon. Patricia Lock Dawson**
    Riverside, RC District 68

20. **Sup. Vianey Lopez**
    Ventura County

21. **Hon. Yasmine-Imani McMorrin**
    Culver City, WCCOG

22. **Hon. Jeannette Sanchez-Palacios**
    Ventura, VCOG

23. **Hon. Suely Saro**
    Long Beach, RC District 29

24. **Hon. Patty Senecal**
    Seal Beach, OCCOG

25. **Hon. Jennifer Stark**
    Claremont, SGVCOG

26. **Hon. Ali Taj**
    Artesia, GCCOG

27. **Hon. Tamala Takahashi**
    Burbank, SFVCOG

28. **Hon. Connor Traut**
    Buena Park, OCCOG

29. **Hon. Stephanie Virgen**
    Coachella, CVAG

30. **Hon. Dale Welty**
    Canyon Lake, WRCOG

ENERGY AND ENVIRONMENT COMMITTEE AGENDA

Southern California Association of Governments
900 Wilshire Boulevard, Suite 1700 - Policy A Meeting Room
Los Angeles, CA 90017
Thursday, June 4, 2026
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 Rick Denison, Chair)

PUBLIC COMMENT PERIOD (Matters Not on the Agenda)
This is the time for public comments on any matter of interest within SCAG's jurisdiction that is ***not*** listed on the agenda. For items listed on the agenda, public comments will be received when that item is considered. 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.

REVIEW AND PRIORITIZE AGENDA ITEMS

CONSENT CALENDAR

Approval Items

1. Minutes of the Meeting – March 5, 2026 **PG. 8**

Receive and File

2. EEC Outlook and Future Agenda Items **PG. 15**

INFORMATION ITEMS

3. Connect SoCal 2024: Implementation Strategies Update 10 Mins. **PG. 20**
(Leslie A. Cayton, Associate Regional Planner, SCAG)

4. Overview of Transportation Conformity and Anticipated Regional Conformity Challenges in SCAG Region 15 Mins. **PG. 47**
(Lijin Sun, Planning Supervisor, SCAG)

5. Innovative Clean Transit Regional Assessment Study Update 10 Mins. **PG. 61**
(Priscilla Freduah-Agyemang, Senior Regional Planner, SCAG)

6. Data Center Energy and Water Use 40 Mins. **PG. 85**
(Nell Green, Senior Research Fellow, Wheeler Water Institute at UC Berkeley's Center for Law; and Eric Masanet, Professor and Mellichamp Chair of Sustainability Science for Emerging Technologies, UC Santa Barbara, and Faculty Scientist, Lawrence Berkeley National Laboratory)

CHAIR'S REPORT
(The Honorable Rick Denison, Chair)

STAFF REPORT
(Ivette Macias, Government Affairs Officer, SCAG)

ANNOUNCEMENTS

ADJOURNMENT

Southern California Association of Governments
June 4, 2026

MINUTES OF THE MEETING
ENERGY AND ENVIRONMENT COMMITTEE
THURSDAY, MARCH 5, 2026

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). A quorum was present.

Members Present

Hon. Rick Denison (Chair)	*Yucca Valley*	District 11
Hon. Daniel Ramos (Vice Chair)	*Adelanto*	District 65
Hon. Ana Beltran	*Westmoreland*	ICTC
Hon. Art Bishop	*Town of Apple Valley*	SBCTA
Hon. Daniel Brotman	*Glendale*	District 42
Hon. Martha Cardenas-Singh		Imperial County
Hon. Robert Copeland	*Signal Hill*	GCCOG
Hon. Margaret Clark	*Rosemead*	SGVCOG
Hon. Jenny Crosswhite	*Santa Paula*	District 47
Hon. Carmen Hernandez	*Barstow*	SBCTA
Hon. Shari Horne	*Laguna Woods*	OCCOG
Hon. Britt Huff	*Rolling Hills Estates*	SBCCOG
Hon. Brian Johsz	*Chino Hills*	SBCTA
Hon. Joe Kalmick	*Seal Beach*	District 20
Hon. Elaine Litster	*Simi Valley*	VCOG
Hon. Vianey Lopez		Ventura County
Hon. Patricia Lock Dawson	*Riverside*	District 68
Hon. Yasmine-Imani McMorrin	*Culver City*	WCCOG
Hon. Jeannette Sanchez-Palacios	*Ventura*	VCOG
Hon. Suely Saro	*Long Beach*	District 29
Hon. Patty Senecal	*Seal Beach*	OCCOG
Hon. Jennifer Stark	*Claremont*	SGVCOG
Hon. Ali Taj	*Artesia*	Pres. Appt
Hon. Tamala Takahashi	*Burbank*	SFVCOG
Hon. Stephanie Virgen	*Coachella*	CVAG

Members Not Present

Hon. Ned Davis	*Westlake Village*	LVMCOG
Hon. Steven Leash	*Cahuilla Band of Indians*	
Hon. Cory Moss	*City of Industry*	Pres. Appt
Hon. Connor Traut	*Buena Park*	OCCOG
Hon. Dale Welty	*Canyon Lake*	WRCOG

CALL TO ORDER AND PLEDGE OF ALLEGIANCE

Chair Denison called the meeting to order at 9:32 a.m. Second Vice President, Jenny Crosswhite, Santa Paula, District 47, led the Pledge of Allegiance. Staff confirmed a quorum was present.

PUBLIC COMMENT PERIOD

Chair Denison opened the public comment period and noted that this was the time for members of the public to offer comment on matters that are within SCAG's jurisdiction but are not listed on the agenda.

Chair Denison asked if any comments were received after the deadline. SCAG staff acknowledged there were no public comments received after the 5:00 p.m. deadline on March 4, 2026.

Seeing no public comment, Chair Denison 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

ACTION ITEM

1. Election of Chair and Vice Chair

Chief Counsel Jeffery Elder stated one nomination had been received for Chair, Rick Denison, Yucca Valley. He stated that in addition to nominees received before the meeting, SCAG's rules allowed nominations from the floor. He then described the process for nominations from the floor and the election.

Chief Counsel Jeffery Elder stated the floor was open for nominations for Chair. Seeing no nominations from the floor, he closed the nomination period.

Chief Counsel Jeffery Elder stated they would move to the nominations for Vice Chair. He stated one nomination had been received for Vice Chair, for Daniel Ramos, City of Adelanto. He stated the floor was open for nominations for Vice Chair. Seeing no nominations from the floor, he closed the nomination period.

Chief Counsel Jeffery Elder stated the vote for Chair and Vice Chair would be combined into one vote and requested the clerk proceed with roll call.

Roll call was taken to approve the nomination for Rick Denison as Chair and Daniel Ramos as Vice Chair. The vote passed by the following votes:

AYES: Beltran, Bishop, Brotman**,** Cardenas-Singh, Clark, Copeland, Crosswhite, Denison, Hernandez, Horne, Huff, Kalmick, Litster, Lock Dawson, Lopez, Ramos, Sanchez-Palacios, Stark, Taj, and Virgen (20)

NOES: None (0)

ABSTAIN: None (0)

CONSENT CALENDAR

Approval Items

2. Minutes of the Meeting – February 5, 2026

Receive and File

3. EEC Outlook and Future Agenda Items

4. REAP 2.0 Program Update

5. Innovative Clean Transit Regional Assessment Study Update

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

AYES: Beltran, Bishop, Brotman**,** Cardenas-Singh, Clark, Copeland, Crosswhite, Denison, Hernandez, Horne, Huff, Kalmick, Litster, Lock Dawson, Ramos, Sanchez-Palacios, Stark, Taj, and Virgen (19)

NOES: None (0)

ABSTAIN: None (0)

INFORMATION ITEMS

6. Connect SoCal 2050: Vision, Goals, and Policy Review

There were no public comments on item 6.

Leslie A. Cayton, Associate Regional Planner, indicated that the plan framework included implementation strategies, vision and goals, and regional planning policies, which were adopted prior to the draft plan release in July 2023. She stated that the vision aimed for a prosperous, accessible, and connected region by 2050, supported by goals across mobility, communities, environment, and economy. She indicated that policy priorities were organized into mobility, communities, environment, and economy, including several new policy areas, with equity and resilience applied across all. Lastly, she presented new and upcoming initiatives that included scenario planning through Connect SoCal Futures, a draft policy development framework, and the launch of a Local Data Exchange.

The comprehensive staff report was included in the agenda packet and posted on the SCAG website. The meeting video is also available on the SCAG website.

7. Release of SCAG's Regional Resilience Toolkit

There were no public comments on item 7.

Sebastian Shetty, Associate Regional Planner, provided a brief introduction on the Resilience Toolkit and stated that resilience planning helped communities recover from shocks and addressed ongoing stressors while reducing risks and improving recovery outcomes. He indicated SCAG supported regional resilience by providing policies, resources, and opportunities for collaboration among jurisdictions and stakeholders. He stated that the toolkit served as a practical, flexible guide with tools and resources that supported both planning and compliance efforts and that understanding local risks required identifying vulnerabilities and aligning local priorities with regional coordination. Lastly, he indicated that resilience planning was critical to recovery by improving resource mobilization and funding resilience efforts involved a mix of grants, financial tools, private investment and innovative financing opportunities.

The comprehensive staff report was included in the agenda packet and posted on the SCAG website. The meeting video is also available on the SCAG website.

8. LA County Heat Action Plan

There were no public comments on item 8.

Ali Frazzini, Policy Director, LA County Chief Sustainability Office, indicated that a heat action plan was needed due to increased heat impacts on health, infrastructure, and inequities. She stated that the plan provided a coordinated, equity-centered framework to address heat impacts across jurisdictions and support regional collaboration. She stated that the plan was developed through extensive engagement with community members, technical experts, and stakeholders to incorporate both data and lived experiences. She indicated key goals were cooling outdoor spaces, improving indoor resilience, and improving urban greening. She stated the CHAP was adopted in February 2026 and would guide coordinated action across governments, organizations, and funders. Lastly, she stated next steps were coordination on state funding opportunities, preparations for 2026 heat season and partnerships to support heat resilience for mega events.

The comprehensive staff report was included in the agenda packet and posted on the SCAG website. The meeting video is also available on the SCAG website.

9. Green Schoolyard Retrofits for Resilience

There were no public comments on item 9.

Claire Robinson, Executive Director, Amigos de Los Rios, stated that she had spent over two decades redesigning public school campuses in under-resourced communities to address climate impacts, outdated infrastructure, and student wellbeing. She indicated that traditional schoolyards dominated by asphalt created extreme heat conditions, poor drainage, and limited opportunities for play and learning. She stated this prompted her team to replace these surfaces with “green schoolyard” designs that integrated tree canopy, shade structures, pervious concrete, stormwater capture systems, and nature-based play areas. She stated that these multi-benefit projects reduced heat exposure, mitigated flooding and vector issues, improved physical and mental health, and enhanced academic engagement by connecting students to environmental concepts like watershed management. She indicated that the work also addressed accessibility gaps for disabled and neurodivergent students while serving as a model for broader community resilience. She noted that despite long-term cost savings, implementation of green schoolyards faced barriers such as limited school funding, high staff turnover, lack of technical expertise, and fragmented coordination across agencies. Lastly, she stated there was a need for stronger collaboration between school districts and municipalities to scale solutions.

The comprehensive staff report was included in the agenda packet and posted on the SCAG website. The meeting video is also available on the SCAG website.

CHAIR’S REPORT

Chair Denison stated that SCAG has published a new resource to support local communities with collaborative planning, information and resource sharing, that limit the effects of disasters and accelerate recovery for local communities and the entire Southern California region. He stated the toolkit is intended for use by any jurisdiction in Southern California, regardless of size,

population, experience in resilience planning, or direct encounters with the shocks and stressors of the current age. He stated SCAG had also published the "Water Resolution White Paper" which evaluated shared water management challenges. He stated that the Regional Council would vote on an action to approve $871,000 in Last Mile Freight Program Rebate Program funding for three projects to purchase Class 4/5 battery-electric vehicles. He stated that the SoCal Greenprint has moved into the final phase of development and that SCAG had begun outreach to agency staff and business and environmental representatives of the Greenprint Technical Advisory Committee. He indicated that their input will inform the subsequent tool to be developed and released in June.

STAFF REPORT

Ivette Macias, Senior Government Affairs Officer, reminded the committee about the upcoming General Assembly occurring in Palm Desert. She stated that SCAG Scholarship Program in partnership with the California Transportation Foundation, would award nine $4,000 scholarships to high school or community college students from the SCAG region. She indicated that students in any field of study were invited to apply and the program application period would close March 20th.

ANNOUNCEMENT

There were no announcements.

ADJOURNMENT

There being no further business, Chair Denison adjourned the Energy and Environment Committee meeting at 11:17 a.m.

[MINUTES ARE UNOFFICIAL UNTIL APPROVED BY THE EEC]
//

ENERGY AND ENVIRONMENT COMMITTEE ATTENDANCE REPORT															
2025-2026															
MEMBERS	**Representing**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**	**Mar**	**April**	**May**	**Jun**	**Total Mtgs Attended To Date**
Beltran, Ana	Westmoreland, ICTC	1			0		0			1	1				**3**
Bishop, Art	Apple Valley, SBCTA	1			0		1			1	1				**4**
Brotman, Daniel	Glendale, RC District 42				1		0			0	1				**2**
Cardenas-Singh, Martha	Imperial County				1		1			0	1				**3**
Clark, Margaret	Rosemead, RC District 32	1			1		1			1	1				**5**
Copeland, Robert	Signal Hill, GCCOG	0			0		1			0	1				**2**
Crosswhite, Jenny	Santa Paula, RC District 47	1			1		1			1	1				**5**
Davis, Ned	Westlake Village, LVMCOG	1			1		1			1	0				**4**
Denison, Rick	Yucca Valley, RC District 11	1	D		1		1	D		1	1				**5**
Hernandez, Carmen	Barstow, SBCTA	1	A		1		1	A		1	1				**5**
Horne, Shari	Laguna Woods, OCCOG	1	R		1		1	R		0	1				**4**
Huff, Britt	Rolling Hills Estates, SCBCOG	1	K		0		1	K		1	1				**4**
Johsz, Brian	Chino Hills, SBCTA	1			0		1			0	1				**3**
Kalmick, Joe	Seal Beach, RC District 20	1			1		1			1	1				**5**
Leash, Steven	Cahuilla Band of Indians	0			0		0			1	0				**1**
Litster, Elaine	Simi Valley, VCOG	1			1		0			1	1				**4**
Lock Dawson, Patricia	Riverside, District 68	0			0		0			1	1				**2**
Lopez, Vianey	Ventura County	1			1		1			1	1				**5**
McMorrin, Yasmine-Imani	Culver City, WCCOG	1			1		1			1	1				**5**
Moss, Cory	City of Industry, Pres. Apt	0			0		1			0	0				**1**
Ramos, Daniel	Adelanto, SBCTA	1			1		1			1	1				**5**
Sanchez-Palacios, Jeanette	Ventura, VCOG	0			0		0			0	1				**1**
Saro, Suely	Long Beach, RC District 29	0			0		1			1	1				**3**
Senecal, Patty	Seal Beach, OCCOG	1			0		0			1	1				**3**
Stark, Jennifer	Claremont, SGVCOG	1			1		1			1	1				**5**
Taj, Ali	Artesia, Pres. Apt	1			0		1			1	1				**4**
Takahashi, Tamala	Burbank, SFVCOG	1			1		1			1	1				**5**
Traut, Connor	Buena Park, OCCOG	1			1		1			1	0				**4**
Virgen, Stephanie	Coachella, CVAG	0			1		1			1	1				**4**
Welty, Dale	Canyon Lake, WRCOG	1			1		1			1	0				**4**

AGENDA ITEM 2

REPORT

Southern California Association of Governments
June 4, 2026

To: EEC - Energy and Environment Committee

From: Ryan Wolfe, Department Manager (S and R)
213-630-1527, wolfe@scag.ca.gov

Subject: EEC Outlook and Future Agenda Items

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

RECOMMENDED ACTION:
Information Only - No Action Required

STRATEGIC PRIORITIES:
This item supports the following Strategic Priority 1: Establish and implement a regional vision for a sustainable future. 5: Secure and optimize diverse funding sources to support regional priorities. 3: Spur innovation and action through leadership in research, analysis and information sharing. 2: Be a cohesive and influential voice for the region.

EXECUTIVE SUMMARY:
In April 2024, SCAG's Regional Council adopted the 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy, Connect SoCal 2024. Following adoption of Connect SoCal 2024, staff developed a 12-month EEC Outlook to carry forward the policy priorities and Implementation Strategies of Connect SoCal 2024. For FY2026, the EEC Outlook reflects outcomes of the 2025 Executive Administration Committee (EAC) Retreat and discussions with the EEC Chair and Vice Chair. The Committee Outlook and Future Agenda Items will be updated monthly as a receive and file item and can be pulled by the Chair for discussion at the request of members for input and modifications.

BACKGROUND:
The work of the Southern California Association of Governments (SCAG) and the leadership from the agency's Policy Committees and Regional Council is driven by SCAG's legally mandated duties as a Metropolitan Planning Organization (MPO) for Southern California, the long-range Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), Connect SoCal 2024 as well as, the agency Strategic Plan approved by the Executive Administrative Committee on May 1, 2024.

Energy and Environment (EEC) Committee Outlook and Framework
The Policy Committees help to further the implementation of Connect SoCal by advising on policy, research or resource programs. The Policy Committees will also be informed and advise on broader regional leadership items as needed.

In addition, as appropriate within the scope of each Policy Committee, the 2026 Presidential Priorities are incorporated in the Outlook.

- Clean Transportation Technology
- Housing Production
- Regional planning in support of the 2028 Olympic & Paralympic Games

The topics and panels covered may change based on speaker availability, progress on the targeted programs, and other requests from the Committee Chair and Vice Chair as well as members. To request future agenda items, Policy Committee members may request that the agenda item be pulled for discussion, or they may send a request directly to the Chair or committee staff for consideration and reporting out at the next meeting. Agenda items that are recommended by Policy Committee members will be discussed with the Chair and Vice Chair to assess relevance to the EEC Policy Committee and the considerations noted above.

FISCAL IMPACT:
None.

ATTACHMENT(S):
1. June 2026 EEC Agenda Outlook

Energy and Environment Committee

The Energy & Environment Committee (EEC) shall study and provide policy recommendations to the Regional Council relative to challenges and opportunities, programs and other matters, which pertain to the regional issues of energy and the environment. EEC shall also be responsible for reviewing and providing policy recommendations to the Regional Council on matters pertaining to environmental compliance.

EEC Committee Agenda Outlook for FY2026

Anticipated major actions and information items. Does not include all Receive/File and Program Updates

Date	Agenda Items
Sept	• Natural and Agricultural Lands Study Overview • Ecosystem Services • Connect SoCal: Subregional SCS Strategy Framework • Innovative Clean Transit Study*
Oct	**No Meetings**
Nov	• Panel: Planning for Extreme Heat • Connect SoCal Implementation Strategies
Dec	**Joint Policy Committee Meeting: Economic Update**
Jan	**No Meetings**
Feb	• ~~Vehicle-to-Grid Technologies*~~ Moved to June • Nature-Based Strategies: Flooding • Innovative Clean Transit Update • Connect SoCal: Vision and Goals Review

**Presidential Priorities*

•Clean Transportation Technology

EEC Committee Agenda Outlook for FY2026

Anticipated major actions and information items. Does not include all Receive/File and Program Updates

Date	Agenda Items
Mar	• Regional Resilience Toolkit Overview • Connect SoCal 2050: Vision, Goals, and Policies Review • LA County Heat Action Plan • Green Schoolyard Retrofits for Resilience • ~~Integrating Resilience into Capital Improvement Plans~~ *Will be rescheduled* • ~~Resilient Utility Infrastructure~~ *Will be rescheduled*
Apr	**Joint Policy Committee Meeting: Connect SoCal Policy Framework**
May	**General Assembly**
Jun	• ~~Climate finance tools~~ *Will be rescheduled* • ~~Vehicle-to-Grid Technologies*~~ *Will be rescheduled* • Innovative Clean Transit Regional Assessment Study Update • Connect SoCal 2024 Implementation Strategy Update • Transportation Conformity 101 • Artificial Intelligence/Data Centers: The Water Energy Nexus

**Presidential Priorities*
•Clean Transportation Technology

AGENDA ITEM 3

REPORT

Southern California Association of Governments
June 4, 2026

To: EEC - Energy and Environment Committee
CEHD - Community, Economic, and Human Development Committee
TC - Transportation Committee

From: Leslie Anne Cayton, Associate Regional Planner (PS)
213-630-1453, cayton@scag.ca.gov

Subject: Connect SoCal 2024: Implementation Strategies Update

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

RECOMMENDED ACTION:
Information Only — No Action Required

STRATEGIC PRIORITIES:
This item supports the following Strategic Priority 3: Spur innovation and action through leadership in research, analysis and information sharing.

EXECUTIVE SUMMARY:
In April 2024, the Regional Council adopted Connect SoCal 2024, SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Connect SoCal 2024 included Implementation Strategies which identify ways SCAG will Lead, Partner, or Support other responsible parties. This report summarizes the progress to date of these implementation activities for which methods vary from collaborative policy leadership, research, or resource roles.

BACKGROUND:
As required by federal and state law, SCAG prepares a long-range Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) every four years which provides a vision for integrating land use and transportation for increased mobility and more sustainable development. The Regional Council adopted the latest RTP/SCS, Connect SoCal 2024, in April 2024. SCAG led an extensive planning and visioning process in developing Connect SoCal 2024, including meetings with 164 jurisdictions in the region to review their growth forecasts, an extensive public outreach process, and policy discussions with elected leaders from around the region. The plan identifies a series of outcomes including increased transit ridership; an emphasis on Priority Development Areas that bring housing, jobs, and mobility options closer together; safe and efficient goods movement; and streets that prioritize people and safety. Staff provided Implementation Strategies updates to the Policy Committees in November 2024, June 2025, and November 2025.

CONNECT SOCAL 2024 IMPLEMENTATION

Direct implementation of Connect SoCal 2024 primarily relies on the actions and decisions of other transportation agencies, local jurisdictions, and actors in the private sector to operate transit service, install new bike paths, approve new land uses, or build new housing. SCAG has an increasingly significant role in implementing the plan which rests on collaboration with other agencies and stakeholders, policy leadership, our role as an information hub, through research—and, lastly, by providing resources to local agencies or jurisdictions to advance their efforts or implementation.

Regional Planning Policies: Connect SoCal 2024 includes Regional Planning Policies which provide guidance for integrating land use and transportation planning to realize the vision of Connect SoCal. The policies have been refined over several planning cycles to promote multimodal transportation investments and local development that align with the regional growth vision. The policies also incorporate recent direction from SCAG's Regional Council, Policy Committees, and special subcommittees.

Implementation Strategies: The Implementation Strategies articulate priorities for SCAG efforts in fulfilling or going beyond the related Regional Planning Policies. These strategies represent near term efforts where SCAG will lead, partner, or support other responsible parties and are further specified as part of SCAG's Overall Work Program development process.

Chapter 3.4 of Connect SoCal 2024 provides the complete list of Implementation Strategies. The Implementation Strategies are organized by Regional Planning Policy categories within the four Connect SoCal goal areas of Mobility, Communities, Environment, and Economy.

Since adoption of Connect SoCal 2024, SCAG has made progress on 84 of the 93 Implementation Strategies. The attached report details the actions and milestones that have occurred since the last semi-annual update in November 2025. Several additional strategies have made internal progress with initial research or drafting of Scopes of Work. As those projects progress, they will be included in future Connect SoCal Implementation Strategy Updates. However, it is critical to note that successful implementation of Connect SoCal 2024 relies on many actors and decision makers beyond SCAG, including local jurisdictions, and state, regional, and federal partners.

Regional Leadership: SCAG's role in implementing Connect SoCal 2024, detailed in many of the Implementation Strategies, is in four primary ways: collaboration and policy leadership, funding administration, research, and resources. The following highlight some of the recent significant activities and milestones completed since Connect SoCal 2024 adoption:

- **Collaboration and Policy Leadership**
  - SCAG collaborated with member and partner agencies through a variety of different forums, including the State Active Transportation Program Technical Advisory Committee, Strategic

Highways Safety Plan Executive Leadership Steering Committee, and the Statewide Zero Traffic Fatalities Task Force.
- SCAG participated in the SB 1098 LOSSAN Working Group and California Freight Advisory Committee (CFAC) Meeting.
- SCAG staff are engaging with key partners to anticipate travel demand of upcoming large-scale events, such as the 2026 FIFA World Cup and 2028 Olympic and Paralympic Games. Engagement efforts include meetings with tourism bureaus, freight industry stakeholders (e.g., ports, California Trucking Association, etc.), airports, governmental agencies (e.g., Caltrans, cities, etc.), and Councils of Governments (COGs) to understand needs and identify opportunities to support.
- SCAG kicked off the Community and Tribal Nations Partnership Strategy project to improve and enhance engagement and consultation practices.
- SCAG is co-sponsoring Senate Bill (SB) 1098 (Cabaldon) to modernize the framework in SB 375 that guides SCAG's work on the Sustainable Communities Strategy as part of Connect SoCal.

- **State and Federal Funding Administration**
  - SCAG Regional Council approved the FFY 2026-27 and FFY 2027-28 Surface Transportation Block Grants (STBG)/Congestion Mitigation and Air Quality (CMAQ) funding recommendations on December 4, 2025.

- **Data Collection, Analysis and Research**
  - SCAG released the 2026 State of the Region Report which provides a baseline performance assessment to help identify future regional needs and highlight emergent issues in the SCAG region.
  - SCAG kicked off the Smart Cities Strategic Plan effort which will explore and recommend clean and innovative technology solutions to reduce VMT and GHG emissions.
  - SCAG kicked off the Southern California Airport Access and Mobility Study which will provide a better understanding of how people travel to and from Southern California's airports.
  - SCAG kicked off work to further develop and enhance the SoCal Transportation Safety Predictive Modeling and Analysis Platform to support improved traffic-related crash analysis and decision-making.
  - SCAG continued advancing the Innovative Clean Transit Study by assessing regional transit operators' readiness for zero-emission fleet transitions, identifying financial and operational challenges, and opportunities for improved coordination and supports.

- **Local Technical Assistance Resources**
  - SCAG released the Regional Resilience Toolkit, which shares resources and information to support Southern California communities, cities, and counties with resilience planning.

- SCAG provided technical assistance through a number of projects supported by the Subregional Partnership Program 2.0 (SRP 2) and Housing Infill on Public and Private Lands (HIPP) programs, many of which are set to be completed by the end of June 2026.
- SCAG is developing a pilot project as part of the Regional Pilots Initiative (RPI), with a local agency partner that will leverage SCAG's recently published Mobility Hub Design and Implementation Guide.
- SCAG applied further updates to the Games TDM Resource Guide to help agencies and organizations develop TDM approaches for mega-events like the 2028 Olympic and Paralympic Games.

NEXT STEPS:
While SCAG continues to implement Connect SoCal 2024, staff have begun development of the next RTP/SCS, Connect SoCal 2050. On April 9, 2026, SCAG staff presented the Draft Policy Development Framework for Connect SoCal 2050 to the Joint Policy Committees, outlining how key policy updates will be shaped, in partnership with the Policy Committees and Regional Council. On May 7, the Regional Council approved the creation of a Connect SoCal 2050 Subcommittee to launch this summer which will support continued policy development for Connect SoCal 2050.

FISCAL IMPACT:
None.

ATTACHMENT(S):
1. Connect SoCal 2024: Implementation Strategies Update, June 2026

Connect SoCal 2024: Implementation Strategies Update, June 2026 (84 of 93 strategies)

SCAG's role in implementing Connect SoCal 2024 rests on collaboration with other agencies and stakeholders, policy leadership, our role as an information hub, through research—and, lastly, by providing resources to local agencies or jurisdictions to advance their planning efforts. In total, 84 of the 93 strategies have progressed since the adoption of Connect SoCal 2024. Below are key actions and milestones from November 2025 to May 2026 under those four categories:

- **Collaboration and Policy Leadership**
  - SCAG collaborated with member and partner agencies through a variety of different forums, including the State Active Transportation Program Technical Advisory Committee, Strategic Highways Safety Plan Executive Leadership Steering Committee, and the Statewide Zero Traffic Fatalities Task Force.
  - SCAG participated in the SB 1098 LOSSAN Working Group and California Freight Advisory Committee (CFAC) Meeting.
  - SCAG staff are engaging with key partners to anticipate travel demand of upcoming large-scale events, such as the 2026 FIFA World Cup and 2028 Olympic and Paralympic Games. Engagement efforts include meetings with tourism bureaus, freight industry stakeholders (e.g., ports, California Trucking Association, etc.), airports, governmental agencies (e.g., Caltrans, cities, etc.), and Councils of Governments (COGs) to understand needs and identify opportunities to support.
  - SCAG kicked off the Community and Tribal Nations Partnership Strategy project to improve and enhance engagement and consultation practices.
  - SCAG is co-sponsoring Senate Bill 1098 (Cabaldon) to modernize the framework in SB 375 that guides SCAG's work on the Sustainable Communities Strategy as part of Connect SoCal.
- **State and Federal Funding Administration**
  - SCAG Regional Council approved the FFY 2026-27 and FFY 2027-28 Surface Transportation Block Grants (STBG)/Congestion Mitigation and Air Quality (CMAQ) funding recommendations on December 4, 2025.
- **Data Collection, Analysis and Research**
  - SCAG released the 2026 State of the Region Report which provides a baseline performance assessment to help identify future regional needs and highlight emergent issues in the SCAG region.
  - SCAG kicked off the Smart Cities Strategic Plan effort which will explore and recommend clean and innovative technology solutions to reduce VMT and GHG emissions.
  - SCAG kicked off the Southern California Airport Access and Mobility Study which will provide a better understanding of how people travel to and from Southern California's airports.
  - SCAG kicked off work to further develop and enhance the SoCal Transportation Safety Predictive Modeling and Analysis Platform to support improved traffic-related crash analysis and decision-making.

  - SCAG continued advancing the Innovative Clean Transit Study by assessing regional transit operators' readiness for zero-emission fleet transitions, identifying financial and operational challenges, and opportunities for improved coordination and supports.
- **Local Technical Assistance Resources**
  - SCAG released the Regional Resilience Toolkit, which shares resources and information to support Southern California communities, cities, and counties with resilience planning.
  - SCAG provided technical assistance through a number of projects supported by the Subregional Partnership Program 2.0 (SRP 2) and Housing Infill on Public and Private Lands (HIPP) programs, many of which are set to be completed by the end of June 2026.
  - SCAG is developing a pilot project as part of the Regional Pilots Initiative (RPI), with a local agency partner that will leverage SCAG's recently published Mobility Hub Design and Implementation Guide.
  - SCAG applied further updates to the Games TDM Resource Guide to help agencies and organizations develop TDM approaches for mega-events like the 2028 Olympic and Paralympic Games.

The tables on the following pages provide additional progress details for the 71 Implementation Strategies that have progressed between November 2025 and May 2026, organized by each of the four Connect SoCal 2024 goal pillars: Mobility, Communities, Environment, and Economy.

MOBILITY

Category	Strategy	Status	Action or Milestone
Complete Streets	Support implementation of Complete Streets demonstrations (including those addressing curb space management) to accommodate and optimize new technologies and micromobility devices, first/last mile connections to transit and last-mile deliveries.	In Progress	SCAG staff awarded a contract and kicked off the Cal State University, Dominguez Hills Transportation Demand Management Plan. SCAG released a Request for Proposals for the Regional Safety Action Plan.
Complete Streets	Support community-led Complete Streets plans and projects, including those that take into account how to mitigate or adapt to climate change impacts (e.g., extreme heat).	In Progress	SCAG staff awarded a contract and kicked off the Cal State University, Dominguez Hills Transportation Demand Management Plan. SCAG released a Request for Proposals for the Regional Safety Action Plan.
Complete Streets	Encourage data-driven approaches to inform Complete Streets policies.	In Progress	SCAG released a Request for Proposals for the Regional Safety Action Plan.
Complete Streets	Develop a Complete Streets network and integrate Complete Streets into regional policies and plans, including consideration of their impact on equity areas.	In Progress	SCAG released a Request for Proposals for the Regional Safety Action Plan.
Complete Streets	Engage regional stakeholders in Complete Streets policy and plan development, implementation and evaluation.	In Progress; Ongoing	SCAG staff convened quarterly meetings of the Safe and Active Streets Working Group in January and March 2026. SCAG released a Request for Proposals for the Regional Safety Action Plan.
Complete Streets	Provide leadership at the state and regional levels to promote Complete Streets, including involvement on the statewide Complete Streets Advisory Committee and the Active Transportation Technical Advisory Committee.	In Progress; Ongoing	SCAG staff attended several statewide meetings: State Active Transportation Program Technical Advisory Committee (December 2025 and April 2026), California Walk and Bike Technical Advisory Committee (November 2025 and February 2026), and Strategic Highway Safety Plan Bicyclist & Pedestrian Challenge Areas (March 2026). SCAG released a Request for Proposals for the Regional Safety Action Plan.
Funding the System/User Pricing	*Coordinate with local, regional, state and national partners to support transition to a mileage-based user fee.	Ongoing	SCAG submitted revised scope of work for the Strategic Innovation Revenue Collection (SIRC) Grant to comply with Executive Orders and is waiting for approval of the funding agreement from Federal Highway Administration (FHWA).

Funding the System/User Pricing	*Support local and regional partners on implementation of dynamic and congestion-based pricing programs, including facilitation of regional coordination.	Ongoing	SCAG submitted revised scope of work for the SIRC Grant to comply with Executive Orders and is waiting for approval of the funding agreement from FHWA.
Funding the System/User Pricing	*Continue development and support for job-center parking pricing, including through Smart Cities and the Mobility Innovations Sustainable Communities Program (SCP) grant program.	In Progress	SCAG Regional Council approved the FFY 2026-27 and FFY 2027-28 Surface Transportation Block Grants (STBG)/Congestion Mitigation and Air Quality (CMAQ) funding recommendations on December 4, 2025. Contributions to federal performance measures were a key component in the scoring criteria that determined awards.
Funding the System/User Pricing	*Continue to coordinate with regional partners to support build-out of regional express lanes network.	Ongoing	SCAG submitted revised scope of work for the SIRC Grant to comply with Executive Orders and is waiting for approval of the funding agreement from FHWA. SCAG staff procured consultant and initiated work on SB 743 study on regional vehicle miles traveled (VMT) reduction strategies from the regional express lanes network and other mitigation strategies.
Funding the System/User Pricing	Study and pilot transportation user-fee programs and mitigation measures that increase equitable mobility.	Upcoming	SCAG submitted revised scope of work for the SIRC Grant to comply with Executive Orders and is waiting for approval of the funding agreement from FHWA}.
Safety	Promote implementation of data-driven approaches to guide transportation safety and security investment decision-making, including development of High Injury Networks and innovative safety modeling tools.	In Progress	SCAG continued the enhancement of the SoCal Transportation Safety Predictive Modeling Platform and presented on how the platform can support development of grant applications for Active Transportation Program (ATP) Cycle 8 at the March 2026 Safe and Active Streets Working Group meeting.
Safety	Provide leadership at the state and regional levels to promote transportation safety and security planning, including involvement on the statewide Strategic Highway Safety Plan (SHSP) Steering Committee and Executive Leadership Committee.	Ongoing	SCAG staff continued to represent MPOs at meetings of the Strategic Highway Safety Plan (SHSP) Executive Leadership, Steering Committee, and the Bike and Pedestrian Challenge Area Working Groups. SCAG staff attended the first meeting of the reconvened Statewide Zero Traffic Fatalities Task Force in March 2026.

Safety	Evaluate projects submitted for inclusion in RTP/SCS and FTIP for their progress in achieving safety targets in the SCAG region.	Ongoing	SCAG Regional Council approved the FFY 2026-27 and FFY 2027-28 STBG/CMAQ funding recommendations on December 4, 2025. Contributions to federal performance measures were a key component in the scoring criteria that determined awards.
Safety	Work with local, state and federal partners to advance safer roadways, including reduced speeds to achieve zero deaths and reduce GHG.	Ongoing	SCAG staff attended several statewide meetings: State Active Transportation Program Technical Advisory Committee (December 2025 and April 2026), California Walk and Bike Technical Advisory Committee (November 2025 and February 2026), and Strategic Highway Safety Plan Bicyclist & Pedestrian Challenge Areas (March 2026). SCAG staff attended the first meeting of the reconvened Statewide Zero Traffic Fatalities Task Force in March 2026. SCAG released a Request for Proposals for the Regional Safety Action Plan.
System Preservation and Resilience	Per federal requirements, establish and monitor regional targets for pavement conditions, bridge conditions and transit/rail assets, in coordination with Caltrans.	Ongoing	SCAG staff reviewed and affirmed the Transportation Asset Management Plan (TAMP) from Caltrans which established pavement and bridge condition targets for the state highway system. SCAG staff also participated in and provided funding for the Local Streets and Roads report to understand pavement needs for locally managed roads and bridges.
System Preservation and Resilience	Repair, operate, maintain and preserve the SCAG region's transportation assets in a state of good repair.	Ongoing	SCAG Regional Council approved the FFY 2026-27 and FFY 2027-28 STBG/CMAQ funding recommendations on December 4, 2025. Contributions to federal performance measures were a key component in the scoring criteria that determined awards.
System Preservation and Resilience	Collaborate to work toward a regional asset management approach.	Ongoing	SCAG continues to provide the Transit Asset Management (TAM) database portal (TransAM) for transit agencies as part of the support and maintenance contract. SCAG began procuring a consultant to support the TAM database portal and target setting efforts for Connect SoCal 2050. SCAG participated in the SB 1098 LOSSAN Working Group to support a coordinated, data-driven regional process focused on improving governance, operations, and long-term sustainability of the LOSSAN rail corridor.

System Preservation and Resilience	Evaluate projects submitted for inclusion in the FTIP and RTP/SCS according to contributions in achieving system performance targets.	Ongoing	SCAG Regional Council approved the FFY 2026-27 and FFY 2027-28 STBG/CMAQ funding recommendations on December 4, 2025. Contributions to federal performance measures were a key component in the scoring criteria that determined awards.
Technology Integration	Develop a Smart Cities Vision Plan and periodically revise the Technology Guiding Principles to inventory existing policies, evaluate emerging technologies, recommend best practices, implement ITS priorities, assess current trends and research, identify pilot opportunities and improve transportation system safety and efficiency.	In Progress	SCAG staff completed procurement, selected a consultant team, and kicked off with a meeting with internal and external collaborators. Work is underway to assess existing conditions and establish a Technical Advisory Committee to support plan development and provide critical guidance on potential pilot opportunities and technology priorities.
Technology Integration	Provide local technical assistance grants in support of innovative technology solutions that reduce VMT and GHG emissions. Pursue funding and partners to continue the testing and deployment of emerging technologies.	Ongoing	SCAG staff continued to support stakeholder inquiries on potential partnerships and funding opportunities. As part of the Smart Cities Strategic Plan process, SCAG staff will explore and recommend innovative technology solutions to reduce VMT and GHG emissions, in alignment with an upcoming SCAG Call for Projects to provide direct technical assistance.
Technology Integration	Implement Intelligent Transportation Systems (ITS) priorities to improve the safety and efficiency of the current transportation system.	Ongoing	SCAG staff met with Imperial and Ventura County staff to initiate updates to the county-level architectures. SCAG staff are also preparing a scope of work for the next ITS Architecture update contract services. SCAG Regional Council approved the FFY 2026-27 and FFY 2027-28 STBG/CMAQ funding recommendations on December 4, 2025. Contributions to federal performance measures were a key component in the scoring criteria that determined awards.
Technology Integration	Conduct regional assessment of current and planned Connected and Automated Vehicle (CAV) implementation in the SCAG region to determine opportunity zones for future deployments and develop toolkits and best practices for local jurisdictions.	Ongoing	Assessment of CAV existing conditions and key projects integrated within the Smart Cities Strategic Plan efforts. As part of the Smart Cities Strategic Plan process, SCAG staff will explore and identify opportunity zones and issue guidance on best practices.

Transit and Multimodal Integration	* All Modes. Increase multimodal connectivity (e.g., first/last mile transit and airport connections), which includes planning for and developing mobility hubs throughout the SCAG region.	In Progress	As part of the Regional Pilots Initiative (RPI), SCAG is advancing the development of a pilot project with a local agency partner. The pilot will leverage SCAG's recently published Mobility Hub Design and Implementation Guide to support the design and implementation of a network of mobility hubs. The funding obligation and environmental review of the pilot project is in progress.
Transit and Multimodal Integration	* All Modes. Enable a more seamless mobility experience through the implementation of Mobility as a Service (MaaS). This may include leveraging Cal-ITP's support, initiate open-loop payment demonstrations, and test shared product systems and post-payment solutions.	In Progress	The Open Loop Fare Payment Demonstration project is part of the Regional Pilots Initiative (RPI) Program. Following the execution of an MOU with SCAG, Metrolink completed the procurement of equipment, materials, and vendors necessary to implement the open loop demonstration. Site planning and design for the 18 stations along the San Bernardino & Arrow lines was completed in January 2026. The installation of open loop validators at the stations is in progress and the pilot is expected to launch in Spring 2026.
Transit and Multimodal Integration	* All Modes. Test, deploy and scale new and shared mobility services, including micromobility (e.g., bike share, e-scooters, etc.) and microtransit pilot projects.	In Progress	As part of the Regional Pilots Initiative (RPI) Program, SCAG and the Housing Authority of the City of Los Angeles (HACLA) kicked off the E-Bike Lending Library project in January 2026. HACLA is leading the procurement of a consultant to support design & engineering of the e-bike facility and has recently executed an agreement with the Eastside Riders Bike Club (ESRBC), who will support e-bike program development and operations. Initial outreach to residents of Nickerson Gardens to gauge interest and demand for the e-bike lending library was initiated in March 2026.
Transit and Multimodal Integration	* Active Transportation. Support community-led active transportation and safety plans, projects and programs (e.g., Safe Routes to Schools). Partner with local jurisdictions on demonstrations and quick-build projects through SCAG's Go Human initiative.	In Progress	SCAG staff awarded a contract and kicked off the Cal State University, Dominguez Hills Transportation Demand Management Plan.

Transit and Multimodal Integration	* Active Transportation. Expand the region's networks of bicycle and pedestrian facilities. This includes creating more low stress facilities, such as separated bikeways and bike paths, slow streets, and open streets.	In Progress	SCAG staff awarded a contract and kicked off the Cal State University, Dominguez Hills Transportation Demand Management Plan.
Transit and Multimodal Integration	* Streets and Freeways. Reconnect communities by removing, retrofitting or mitigating transportation facilities such as highways or railways that create barriers to community connectivity.	In Progress	As part of the Highways to Boulevards Regional Study, SCAG staff is supporting the development of conceptual plans in six jurisdictions to advance project goals.
Transportation System Management	Develop a regional Transportation System Management and Operations (TSMO) plan that integrates Intelligent Transportation System (ITS) strategies to maximize the efficiency of the existing and future transportation system.	In Progress	SCAG staff developed a TSMO framework for integration into Connect SoCal 2050.
Transportation System Management	Evaluate projects submitted for inclusion in RTP/SCS and FTIP for progress in achieving travel-time reliability in the SCAG region.	Ongoing	SCAG Regional Council approved the FFY 2026-27 and FFY 2027-28 STBG/CMAQ funding recommendations on December 4, 2025. Contributions to federal performance measures were a key component in the scoring criteria that determined awards.
Transportation Demand Management	Incentivize and promote the development of more Transportation Management Agencies/ Organizations (TMAs/TMOs).	In Progress	SCAG developed an approach to engage TMAs/TMOs to support the 2028 Games Regional Transportation Demand Management (TDM) Strategy. SCAG will hold targeted meetings with TMAs/TMOs to assess needs and priorities and identify partnership opportunities.
Transportation Demand Management	Facilitate partnerships and provide a forum between public and private sector TDM practitioners and stakeholders to develop and implement policies, plans and programs that encourage use of transportation alternatives.	Ongoing	SCAG continues to convene monthly Games Mobility Executives TDM Subcommittee meetings and held the quarterly Regional TDM Forum in March 2026 to promote regional collaboration. SCAG staff also holds focus group and targeted meetings with stakeholders to coordinate and align efforts and advance a cohesive TDM strategy.

Transportation Demand Management	Develop and promote the use of a regional TDM data clearinghouse. Leverage data and TDM Toolbox best practices to identify cost-effective strategies.	In Progress	SCAG staff, in coordination with partners, developed a 2028 Games Regional TDM Approach, which serves a framework to guide the development and implementation of a regional TDM strategy. The framework outlines key objectives, such as the need to identify key performance metrics and develop an evaluation process to support ongoing refinement and optimization. SCAG will also be developing regionwide resources, such as an updating TDM toolbox tailored to the Games that will include guidance on data collection and evaluation.
Transportation Demand Management	Collaborate to develop regional and localized marketing campaigns that promote TDM modes such as transit, carpool, walking and biking to school.	In Progress	SCAG staff, in coordination with the selected consultant, is developing a communications and outreach plan to support a regional communications campaign. An initial task involves conducting a regionwide assessment of partner communications channels.

COMMUNITIES

Category	Strategy	Status	Action or Milestone
15-Minute Communities	*Develop technical-assistance resources and research that support 15-minute communities across the SCAG region by deploying strategies that include, but are not limited to, redeveloping underutilized properties and increasing access to neighborhood amenities, open space and urban greening, job centers and multimodal mobility options.	In Progress	SCAG staff is currently negotiating with a consultant to develop a Complete Communities/15-minute communities Toolkit that will assist and support local jurisdictions on implementing strategies to promote projects within Priority Development Areas (PDAs). The project is expected to kick off next quarter and develop a Complete Communities Toolkit. The toolkit is expected to be finalized in summer of 2027.
15-Minute Communities	*Identify and pursue funding programs and partnerships for local jurisdictions across the region to realize 15-minute communities.	In Progress	SCAG staff is currently negotiating with a consultant to develop a Complete Communities/15-minute communities Toolkit that will assist and support local jurisdictions on implementing strategies to promote projects within PDAs. The project is expected to kick off next quarter and develop a Complete Communities Toolkit. The toolkit is expected to be finalized in summer of 2027.
Equitable Engagement and Decision-Making	Develop an Equity Assessment Tool that can be utilized by SCAG in program development and delivery. Develop a complementary tool that can be incorporated into local assistance/ subrecipient programming and delivery.	In Progress	Staff reviewed updated federal policy to align the strategy and actions with changes as applicable. SCAG staff are working on enhancements to the internal Equity Planning Tool to align with state and federal policy.
Equitable Engagement and Decision-Making	Develop an agency-wide Community Partnering Strategy that outlines tools and resources for partnering with CBOs, tribal entities and other partners to increase inclusive and equitable engagement opportunities.	In Progress	Staff reviewed federal policy to align the strategy and actions with change. SCAG staff selected a consultant and kicked off work to develop the Community and Tribal Nations Partnership Strategy.
Equitable Engagement and Decision-Making	Develop a resource guide and training for equitable and culturally relevant stakeholder engagement for public agencies, including SCAG, that recognizes community contexts and histories, existing community resources and engagement opportunities.	In Progress	Staff reviewed federal policy to align the strategy and actions with change. SCAG staff selected a consultant and kicked off work to develop the Community and Tribal Nations Partnership Strategy.

Equitable Engagement and Decision-Making	Align with appropriate state and federal partners to identify and utilize equity centered measures to track outcomes, progress and lessons learned from Connect SoCal implementation.	In Progress	Staff reviewed federal policy to align the strategy and actions with change. Staff released the 2026 State of the Region Report and presented highlights at the Joint Policy Committee Meeting on April 9, 2026.
Housing the Region	Provide technical assistance for jurisdictions to complete and implement their housing elements and support local governments and Tribal Entities to advance housing production.	In Progress	SCAG staff executed 45 Memorandums of Understanding (MOU) under the Notice of Funds Available for Lasting Affordability, Round 1 (NOFA 1), Housing Infill on Public and Private Lands (HIPP), Subregional Partnership Program 2.0 (SRP 2) programs. Five additional MOUs are expected to be executed soon for the recently awarded Notice of Funds Available for Lasting Affordability, Round 2 (NOFA 2) program. Staff are currently working with grantees to complete most projects by June 2026, with some extended to December 2026.
Housing the Region	Identify and pursue partnerships at the local, regional, state and federal levels to align utility, transit and infrastructure investments with housing development and equitable outcomes across the region.	In Progress	SCAG staff executed MOUs for all nine projects under the Regional Utilities Supporting Housing program. Staff are currently working with grantees for projects that are scheduled for completion by June 2026 and advance the remainder for completion by December 2026
Housing the Region	Research and explore innovative homeownership models that can reduce costs and increase housing production in the region. Explore strategies to engage households of color and communities that are underrepresented as homeowners.	In Progress	Of the $45 million REAP 2.0 funds awarded in the Lasting Affordability Program, over $13.89 million has been disbursed so far to housing trust funds and catalyst programs that are collectively providing new local revolving lending programs for affordable housing. Multiple loan evaluation committee approvals were recently approved, as well, so additional disbursements are anticipated soon. Furthermore, in March 2026, SCAG awarded $20 million in REAP 2.0 funds as part of Round 2 in the Lasting Affordability Program to five projects with existing housing trust or catalyst funds.

Priority Development Areas	*Support the development of housing in areas with existing and planned infrastructure and availability of multimodal options, and where a critical mass of activity can promote location efficiency.	Ongoing	SCAG staff is currently negotiating with a consultant to develop a Complete Communities/15-minute communities Toolkit that will encourage the development of housing with existing and planned infrastructure. The project is expected to kick off next quarter and develop a Complete Communities Toolkit. The toolkit is expected to be finalized in summer of 2027.
Priority Development Areas	Support local jurisdictions and implementing agencies' strategies to promote plans and projects within PDAs by providing awards, grants and technical assistance.	Ongoing	SCAG staff is currently negotiating with a consultant to develop a Complete Communities/15-minute communities Toolkit that will assist and support local jurisdictions on implementing strategies to promote projects within PDAs. The project is expected to kick off next quarter and develop a Complete Communities Toolkit. The toolkit is expected to be finalized in summer of 2027.

ENVIRONMENT

Category	Strategy	Status	Action or Milestone
Air Quality	Coordinate with local, regional, state and federal partners to meet federal and state ambient air-quality standards and improve public health.	Ongoing	SCAG staff hosted monthly Transportation Conformity Working Group meetings and processed ten project-level conformity review requests. SCAG staff drafted the federally required transportation conformity analyses of the draft 2027 FTIP and Amendment 2 to Connect SoCal 2024, which are expected to receive final federal approval in December 2026 in order to move critical transportation and transit projects forward in the SCAG region. SCAG staff provided updates to and actively coordinated with all involved agencies and partners to fully resolve the statewide transportation conformity lockdown triggered by the revocation of the State's Clean Air Act (CAA) waivers. SCAG staff coordinated with the California Air Resources Board and performed model testing on the new mobile vehicle emissions budgets in support of and to be included in the local air district's required multiple State Implementation Plans for particulate matter (PM10 and PM2.5).
Air Quality	Support local and regional partners by identifying funding opportunities that will help achieve greenhouse gas emission reduction and provide technical assistance and resources, when available.	Ongoing	SCAG Regional Council approved the Last Mile Freight Program (LMFP) Measure 2.2 Infrastructure, Vehicles, and Equipment Strategy for Climate, Equity, Air Quality, and National Competitiveness (INVEST CLEAN) Rebate Program Announcement and Application Checklist and to release the Program Announcement in September 2025. SCAG staff released the LMFP Measure 2.2 INVEST CLEAN Rebate Program Announcement on October 31, 2025. In March 2026, SCAG Regional Council approved an initial list of SCAG LMFP Measure 2.2 INVEST CLEAN projects.
Clean Transportation	Investigate how zero-emission vehicles can strengthen resilience through vehicle to-grid technologies or other opportunities where batteries can be used to enhance capacity of renewable energy sources.	In Progress	SCAG staff recently kicked off the Smart Cities Strategic Plan effort which will include vehicle-to-grid technology. As part of the Smart Cities Strategic Plan process, SCAG staff will explore and recommend innovative technology solutions to reduce VMT and GHG emissions.

Clean Transportation	Investigate opportunities to install charging stations that can be used by multiunit dwellers that don't have the same opportunities for charging as single-family homeowners.	In Progress	SCAG staff recently kicked off the Smart Cities Strategic Plan effort which will include an electric vehicle (EV) charging analysis, incentive programs and strategies for multi-unit dwellings and high-density neighborhoods. As part of the Smart Cities Strategic Plan process, SCAG staff will explore and recommend innovative technology solutions to reduce VMT and GHG emissions.
Clean Transportation	Assist local jurisdictions in developing an incentive program to further adoption of zero-emission passenger vehicles.	In Progress	SCAG staff recently kicked off the Smart Cities Strategic Plan effort which will include incentive programs and strategies. As part of the Smart Cities Strategic Plan process, SCAG staff will explore and recommend innovative technology solutions to reduce VMT and GHG emissions.
Clean Transportation	Facilitate development of EV charging infrastructure through public-private partnerships.	In Progress	SCAG staff continue to explore stakeholder partnerships that advance EV infrastructure to align with Connect SoCal objectives and the Smart Cities program. Additionally, staff initiated development of the Smart Cities Strategic Plan Technical Advisory Committee (TAC) which is anticipated to launch this quarter. As part of the Smart Cities Strategic Plan process, SCAG staff will explore and recommend innovative technology solutions to reduce VMT and GHG emissions.
Clean Transportation	Support the deployment of clean transit and technologies to reduce greenhouse gas emissions as part of the CARB innovative clean technology (ICT) rule	In Progress	SCAG continued advancing the Innovative Clean Transit Study by assessing regional transit operators' readiness for zero-emission fleet transitions, identifying financial and operational challenges, and opportunities for improved coordination and supports.

Climate Resilience	Develop partnerships and programs to support local and regional climate adaptation, mitigation and resilience initiatives.	In Progress	SCAG published Regional Resilience Toolkit in February 2026 and widely shared through announcements at SCAG Regional Council, presentations at SCAG Energy & Environment Committee in March, as well as email newsletters with local jurisdictions and other stakeholders. To further engage stakeholders in use of the Toolkit, SCAG staff presented to the Los Angeles Regional Collaborative on April 9, 2026. The Regional Resilience Toolkit shares resources and information to support Southern California communities, cities, and counties with resilience planning.
Climate Resilience	Research existing and potential options to fund the climate resilience efforts of implementation agencies.	In Progress	SCAG staff released the Regional Resilience Toolkit, which shares resources and information to support Southern California communities, cities, and counties with resilience planning, including funding and financing strategies for resilience projects and post-disaster recovery. SCAG staff continue to work on the Natural and Agricultural Lands Valuation Study, funded by the Sustainable Agriculture Lands Conservation Grant from the California Department of Conservation.
Climate Resilience	Collaborate with partners to foster adoption of systems and technologies that can reduce water demand and/or increase water supply, such as alternative groundwater recharge technologies, stormwater capture systems, urban cooling infrastructure and greywater usage systems.	In Progress	SCAG staff integrated Phase II of the Water White Paper into the Clean and Resilient Utility Infrastructure Study (CRUIS) for which a Request for Proposals was released late 2025.

Climate Resilience	Support use of systems-based risk-management methods and tools to help implementation agencies identify and reduce resilience risks for vulnerable communities.	In Progress	SCAG staff reinitiated development of the SoCal Greenprint Project, established the technical foundation for the Greenprint tool, and completed the beta version of the web application. SCAG established a Service Level Agreement for the long-term hosting and maintenance of the tool, and the consultant delivered the initial beta platform, including required user disclosures and acknowledgements. External stakeholder beta testing was initiated and included participants from local governments, transportation agencies, and the conservation and building sectors. Feedback was collected on usability, clarity, and core functionality to inform refinements in the upcoming phase.
Climate Resilience	Provide local and regional partners with resources, education, and trainings to identify and protect areas vulnerable to climate effects and other resilience shocks and stressors, particularly for low-income communities and communities of color.	In Progress	SCAG published Regional Resilience Toolkit in February 2026 and widely shared through announcements at SCAG Regional Council, the GLUE Council, as well as email newsletters with local jurisdictions and other stakeholders. To further engage stakeholders in use of the Toolkit, SCAG staff presented to the Los Angeles Regional Collaborative on April 9, 2026. The Regional Resilience Toolkit shares resources and information to support Southern California communities, cities, and counties with resilience planning.
Climate Resilience	Support implementing agencies' efforts to include climate-ready home-hardening strategies in new construction as well as the retrofitting of existing structures to minimize the potential loss of housing units stemming from climate-related hazards.	In Progress	SCAG staff advanced implementation support for climate-ready home-hardening strategies through the publication of the Regional Resilience Toolkit in February 2026, which includes funding and financing approaches applicable to residential resilience strategies and post-disaster recovery. The Regional Resilience Toolkit shares resources and information to support Southern California communities, cities, and counties with resilience planning.

Climate Resilience	Support integration of climate vulnerability assessments into infrastructure planning and delivery for implementing agencies.	In Progress	SCAG published Regional Resilience Toolkit in February 2026 and widely shared through announcements at SCAG Regional Council, the GLUE Council, as well as email newsletters with local jurisdictions and other stakeholders. To further engage stakeholders in use of the Toolkit, SCAG staff presented to the Los Angeles Regional Collaborative on April 9, 2026.
Natural and Agricultural Lands Preservation	Identify and leverage resources for research, policies and programs to conserve and restore natural and agricultural lands.	In Progress	As part of the for the Natural and Agricultural Lands Economic and Resilience Benefits Study, SCAG staff conducted stakeholder listening sessions, prepared for upcoming Stakeholder Working Groups, and developed and reviewed a draft Baseline Analysis that established a foundational understanding of natural and agricultural lands in the SCAG region. This work identified existing research and provided essential context for recognizing these lands as critical infrastructure supporting regional resilience, economic prosperity, and quality of life across Southern California.
Natural and Agricultural Lands Preservation	Explore opportunities to increase and quantify the carbon sequestration potential and resilience benefits of natural and agricultural lands—and pursue funding for implementation and demonstration projects.	In Progress	As part of the for the Natural and Agricultural Lands Economic and Resilience Benefits Study, SCAG staff completed development and review of a Baseline Analysis, which established a foundational understanding of natural and agricultural lands in the SCAG region and created a research-based framework to explore opportunities to increase and quantify carbon sequestration and resilience benefits.
Natural and Agricultural Lands Preservation	Work with implementation agencies to support, establish or supplement voluntary regional advance mitigation programs (RAMP) for regionally significant transportation projects to mitigate environmental impacts, reduce per-capita VMT and provide mitigation opportunities through the Intergovernmental Review Process.	In Progress	SCAG staff reinitiated development of the SoCal Greenprint Project and completed the contract amendment to extend the project and include hosting of the SoCal Greenprint application, which will help agencies identify areas apt for protection under a potential RAMP effort. Beta testing kicked off in March 2026 and will be concluding in April. Beta testers draw directly from the Greenprint Technical Advisory Committee and include staff from city and county municipalities, CTCs, as well as representatives from the business and conservation sectors.

Natural and Agricultural Lands Preservation	Continue efforts to support partners in identifying priority conservation areas, including habitat, wildlife corridors, and natural and agricultural lands, for permanent protection.	In Progress	SCAG staff reinitiated development of the SoCal Greenprint Project and completed the contract amendment to extend the project and include hosting of the SoCal Greenprint application, which will help agencies identify areas apt for protection under a potential RAMP effort. Beta testing kicked off in March 2026 and will be concluding in April. Beta testers draw directly from the Greenprint Technical Advisory Committee and include staff from city and county municipalities, CTCs, as well as representatives from the business and conservation sectors.
Natural and Agricultural Lands Preservation	Support the integration of nature-based solutions into implementing agency plans to address urban heat, organic waste reduction, protection of wetlands, habitat and wildlife corridor restoration, greenway connectivity and similar efforts.	In Progress	As part of the for the Natural and Agricultural Lands Economic and Resilience Benefits Study, SCAG staff conducted stakeholder listening sessions, prepared for upcoming Stakeholder Working Groups, and developed and reviewed a draft Baseline Analysis that established a foundational understanding of natural and agricultural lands in the SCAG region. This work provides research-based context to support implementing agencies in integrating nature-based solutions into plans addressing urban heat, organic waste reduction, wetland protection, habitat and wildlife corridor restoration, greenway connectivity, and related efforts.
Sustainable Development	Research the availability of resources that can support the development of water and energy-efficient building practices, including green infrastructure.	Ongoing	SCAG staff released a Request for Proposals for the Clean and Resilient Utility Infrastructure Study (CRUIS). CRUIS looks at utility infrastructure broadly, including water and green infrastructure that advances water resilience.

ECONOMY

Category	Strategy	Status	Action or Milestone
Broadband	Implement "Dig-Once Dig-Smart" policies to install broadband, EV charging stations and Smart Cities related infrastructure whenever highway/roadway improvements occur.	Ongoing	SCAG staff recently kicked off the Smart Cities Strategic Plan effort which will include a cursory overview of broadband. As part of the Smart Cities Strategic Plan process, SCAG staff will explore and recommend innovative technology solutions to reduce VMT and GHG emissions.
Goods Movement	Manage the implementation and transition to near-zero and zero-emission technologies for medium- and heavy-duty vehicles and supporting infrastructure.	In Progress	SCAG staff are working to publish the Southern California Zero Emissions Truck Infrastructure Study. The SCAG Regional Council approved an initial list of projects for the Last Mile Freight Program (LMFP) Rebate Opportunity and staff are working on a second opportunity that is expected to occur later this summer. LMFP Phase 1 participants are still in implementation and 18 projects of 22 have received reimbursement as their projects have completed.
Goods Movement	Continue to coordinate with federal and state partners on goods movement planning efforts, including the Last Mile Freight Program, to position the SCAG region for further funding opportunities.	In Progress	SCAG hosted quarterly coordination meetings in March and April of 2026 with key partners through the Goods Movement Regional Partner Agency Meetings with local seaports, County Transportation Commissions, and Caltrans Headquarters and Districts. SCAG also represented the region's interests at a meeting of the California Freight Advisory Committee (CFAC).
Workforce Development	Provide technical assistance to help local jurisdictions realize their economic and workforce-development goals.	In Progress	SCAG staff released a Request for Proposals for a consultant to develop tax increment financing resources for jurisdictions to advance local goals.
Tourism	Initiate and organize regular meetings between agencies that manage travel and tourism in the region and state to better inform planning efforts and align with travel and tourism needs—particularly with upcoming, large-scale events that include the 2026 FIFA World Cup and 2028 Summer Olympics.	In Progress	SCAG staff are engaging with key partners to anticipate travel demand of upcoming large-scale events, such as the 2026 FIFA World Cup and 2028 Olympic and Paralympic Games. Engagement efforts include meetings with tourism bureaus, freight industry stakeholders (e.g., ports, California Trucking Association, etc.), airports, governmental agencies (e.g., Caltrans, cities, etc.), and Councils of Governments (COGs) to understand needs and identify opportunities to support. SCAG also kicked off the Southern California Airport Access and Mobility Study which will provide a better understanding of how people travel to and from Southern California's airports.

Local Accomplishments

SCAG plays a key role in leading, partnering, and supporting actions to implement Connect SoCal 2024, but local agencies are critical in making the most immediate and impactful changes in the region. To highlight some of the successes in local implementation of Connect SoCal 2024, here is a brief list of some of the accomplishments in the SCAG region since November 2025:

- In December 2025, the City of Long Beach approved plans to outline locations for speed cameras as part of the Speed Safety System Pilot Program, a 5-year pilot intended to address rising traffic fatalities and injuries.
- In December 2025, the City of Santa Monica began construction to replace the 86-year-old Santa Monica Pier Bridge, a major connection to one of California's most popular tourist destinations, Santa Monica Pier. The project is estimated to span two years and cost $35.5 million.
- In December 2025, the Cities of Fontana and San Bernardino began planning for 128 affordable multi-family units and 205 affordable units, respectively, as part of Governor Gavin Newsom's Executive Order N-06-19.
- In January 2026, the City of Santa Clarita launched Fare Capping for Santa Clarita Transit buses. The program will allow riders to ride for free once riders hit the daily or weekly cap, ensuring that riders do not overpay.
- In January 2026, the City of Indio, in partnership with the Imperial Irrigation District, broke ground on the Avenue 42 Substation Project which is comprised of four major energy infrastructure projects that will collectively provide enough power to 16,000 single-family units in the City of Indio.
- In January 2026, the LA Metro approved to move forward with the Metro light rail K line extension towards the Torrance Transit Center, advancing light rail service to South Bay.
- In January 2026, the U.S. Department of Transportation awarded $9.9 million in federal funding to the City of Apple Valley through the Safe Streets for All program, a major milestone to implement the City's Complete Streets Action Plan adopted in June 2025.
- As of January 2026, the Wallis Annenberg Wildlife Crossing over the US-101 Hollywood/Ventura Freeway in Agoura Hill, after significant delays, has enough funding for completion and is in its final stage of construction.
- In February 2026, the City of Los Angeles closed the public comment period for the Draft Environmental Impact Report for the LA River Path, a project will create a safe and efficient active transportation travel option between the San Fernando Valley, Long Beach, and communities in between.
- In February 2026, the County of Los Angeles unanimously approved a comprehensive Heat Action Plan, establishing a countywide strategy to combat extreme heat.

- In February 2026, the LA Metro Construction Committee approved funding for early construction of the Link Union Station modernization project.
- In February 2026, the California Transportation Commission awarded $17 million to the City of Glendale to purchase 20 electric buses.
- In February 2026, the City of Los Angeles began construction of the new $152 million Avalon Pedestrian Bridge and Promenade Gateway project, which will provide pedestrian and bicycle access to the Wilmington Waterfront Promenade and convert former industrial land to community spaces.
- In February 2026, the City of Baldwin Park hosted the grand opening of the newly finished Baldwin Park Greenway, a 2.3-mile protected pathway for cyclists and pedestrians.
- In February 2026, the City of Carson approved two bike projects that will add 20 miles throughout the city, implementing the Carson Master Plan of Bikeways, and anticipated to be complete just before the start of the LA 2028 Olympics.
- In March 2026, the City of Santa Monica celebrated the completed construction of a quick-build project on East Pico Boulevard which was funded through the 2020 Sustainable Communities Program.
- In March 2026, the Riverside County Transportation Commission and Caltrans are testing the Smart Freeway Pilot Project in Temecula. The project uses sensors and ramp meters to monitor and regulate northbound traffic on the I-15.
- In March 2026, the City of Long Beach began construction of the Armory Arts Collective, a 64-unit affordable housing community for seniors.
- In March 2026, the City of Santa Monica opened its first modular affordable housing development, offering 13 affordable apartments for low-income families and young adults facing housing insecurity.
- In April 2026, Metro started construction activities in Pasadena on the North Hollywood to Pasadena Bus Rapid Transit project.
- In May 2026, Metro completed Section 1 of the Metro D Line Subway Extension Project with new service going to three new stations: Wilshire/La Brea, Wilshire/Fairfax, and Wilshire/La Cienega.
- In May 2026, Amtrak, in partnership with the Ventura County Transportation Commission and the Santa Barbara County Association of Governments, will launch a new commuter rail service between Ventura and Santa Barbara Counties.

Performance Measures Update

SCAG monitors regional performance through use of a variety of metrics. Although the full impact of Connect SoCal 2024 may not be detectable so soon after adoption, SCAG continues to monitor regional trends to demonstrate how the region is performing relative to the goals of Connect SoCal and to support performance-based planning and decision-making.

Table 1 summarizes regional performance trends for 18 measures between 2019, the base year for Connect SoCal 2024 analysis, and 2024, the latest available full year of data for the measures. This provides a snapshot of regional performance in the years since the previous Connect SoCal 2020 adoption leading up to adoption of Connect SoCal 2024. As shown in the table, the comparison of performance between 2019 and 2024 reveals the following:

- Due to an increase in the share of people working from home, non-single occupancy vehicle commute mode share increased significantly (by 7.2 percentage points), while the mode shares for active transportation and transit decreased slightly (by 0.2 and 1.1 percentage points, respectively).
- Daily vehicle miles traveled (VMT) per capita is 1.1 miles below 2019 levels, although the trend since 2020 shows a steady increase over the years following the pandemic.
- The total annual number of collision-related fatalities increased by 36 (2.2 percent) since 2019, while the total number of collision-related serious injuries increased by 259 (3.6 percent).
- The median annual household income increased by $24,160 (an increase of 33.6 percent).
- The number of new housing units permitted decreased by 8,567, for a total of 44,506 units permitted in 2024, with significant annual variation among the intervening years.

Table 1: Selected Connect SoCal 2024 Performance Measures, 2019-2024

Performance Measure	2019	2020	2021	2022	2023	2024	2019 vs 2024
Average Commute Travel Time (mins)[1]	32.0	31.1	30.9	30.6	30.8	**31.3**	**-2.2%**
Non-SOV Commute Travel Mode Share[1]	24.0%	25.5%	27.5%	29.2%	31.2%	**31.2%**	**+7.2**
Active Transportation Commute Mode Share[1]	2.7%	2.7%	2.5%	2.6%	2.6%	**2.5%**	**-0.2**
Transit Commute Mode Share[1]	3.8%	3.9%	3.6%	3.4%	3.2%	**2.7%**	**-1.1**
Vehicle Miles Traveled (VMT) per capita[2,3]	22.9	20.4	21.3	21.7	21.8	**21.8**	**-4.8%**
Number of Collision-Related Fatalities[4]	1,601	1,732	1,916	2,012	1,696	**1,637**	**+2.2%**
Number of Collision-Related Serious Injuries[5]	7,162	6,553	7.964	7,881	7,436	**7,421**	**+3.6%**
Number of Active Transportation Fatalities and Serious Injuries[4,5]	2,261	2,009	2,354	2,487	2,441	**2,508**	**+10.9%**
Household Housing Cost Burden[1]	27.6%	27.2%	27.0%	26.8%	26.7%	**26.7%**	**-0.9**
Annual Household Income[1]	$71,994	$75,262	$80,450	$88,006	$92,504	**$96,154**	**+33.6%**
New Housing Units Permitted[6]	53,073	41,201	11,569	59,136	62,134	**44,506**	**-16.1%**
Household Broadband Access[1]	85.8%	88.2%	93.1%	93.3%	94.4%	**94.6%**	**+8.8**
No Health Insurance Coverage[1]	9.0%	8.6%	8.5%	7.7%	7.4%	**5.6%**	**-3.4**
Unemployment Rate[1,3]	6.2%	11.1%	8.8%	5.5%	5.5%	**5.4%**	**-0.8**
Income Below Poverty Line[1,3]	14.0%	13.2%	12.8%	12.6%	12.4%	**12.0%**	**-2.0**

Sources:
1: U.S. Census Bureau
2: California Public Road Data from the Highway Performance Monitoring System
3: California Department of Finance
4: National Highway Traffic Safety Administration, Fatality Analysis Reporting System
5: California Highway Patrol, Statewide Integrated Traffic Records System
6: Southern California Association of Governments

AGENDA ITEM 4

REPORT

Southern California Association of Governments
June 4, 2026

To: EEC - Energy and Environment Committee
TC - Transportation Committee

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

From: Lijin Sun, Planning Supervisor
213-236-1804, sunl@scag.ca.gov

Subject: Overview of Transportation Conformity and Anticipated Regional Conformity Challenges in SCAG Region

RECOMMENDED ACTION FOR EEC:
Information Only – No Action Required

RECOMMENDED ACTION FOR TC:
Receive and File

STRATEGIC PRIORITIES:
This item supports the following Strategic Priority 1: Establish and implement a regional vision for a sustainable future.

EXECUTIVE SUMMARY:
As a Metropolitan Planning Organization (MPO), SCAG develops the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) every four years, the Federal Transportation Improvement Program (FTIP) every two years, and their amendments from time to time. SCAG's RTP/SCS, FTIP, and their amendments are required to demonstrate regional transportation conformity and receive federal approval of conformity determination. The first portion of this staff report is to provide EEC members with an overview of transportation conformity.

As part of the federal conformity regulations, SCAG is required to demonstrate regional transportation conformity to the motor vehicles emissions budgets (MVEBs) that are developed by the California Air Resources Board (CARB) and subsequently approved or found to be adequate by the U.S. Environmental Protection Agency (EPA). Over the last year, federal and state actions have eliminated or significantly changed the estimated criteria pollutants emission reductions attributed to key mobile source regulations previously relied upon to meet MVEBs and demonstrate regional transportation conformity. The second portion of this staff report is to inform EEC and TC members of an anticipated transportation conformity challenge in the SCAG region.

BACKGROUND:

I. Introduction to Transportation Conformity

Transportation conformity is required by the federal Clean Air Act (CAA) to ensure that regional transportation plans, programs, and projects are consistent with or "conform" to an air quality state implementation plan (SIP) for meeting the National Ambient Air Quality Standards (NAAQS). Specifically, transportation conformity means that the regional transportation plans, programs, and projects will not cause new violations of the national air quality standards, worsen the existing violations, or delay the timely attainment of the standards.

Transportation conformity determination is a federal requirement for SCAG's RTP, FTIP, and their amendments and a prerequisite for federally supported transportation projects. SCAG received federal approval of the transportation conformity determination for Connect SoCal 2024 in May 2024 and for the 2025 FTIP and Connect SoCal 2024 Amendment 1 in December 2024. Staff is developing transportation conformity analyses of the draft 2027 FTIP and draft Connect SoCal 2024 Amendment 2, which will be presented to seek EEC's authorization for public release in July 2026, to be followed by a series of transportation conformity analyses for the proposed final 2027 FTIP and proposed final Connect SoCal 2024 Amendment 2 around September 2026, Connect SoCal 2050 in 2027, and 2029 FTIP in 2028.

Transportation conformity determination is a complicated process that has many components, involves many agencies at federal, state, regional, and local levels, has various federal requirements, and can cause serious consequences if not met. The SCAG region encompasses five air districts, each with distinct air planning challenges, adding further complexity to transportation planning and conformity across the region. The following includes seven general Q&As of transportation conformity.

1. What needs to meet transportation conformity?

Transportation conformity applies to the long-range RTP/SCS, short-range FTIPs, and transportation projects funded or approved by the Federal Highway Administration (FHWA) or the Federal Transit Administration (FTA) such as the Port of Long Beach's Harbor Scenic Drive Enhancement project and the Ontario International Airport (ONT) Connector project.

2. How often is transportation conformity required?

Transportation conformity determination must be made at least every four years or when RTPs/FTIPs are significantly amended. Also, transportation conformity determination must be made within 24 months of certain actions on the SIP by EPA. In addition, conformity re-determinations must be made

within 12 months of an area being designated by the EPA as a new non-attainment area or upon new MVEBs approved or found to be adequate by EPA. MVEBs establish the maximum allowable emissions from on-road transportation sources for purposes of demonstrating regional transportation conformity.

3. What are the federal transportation conformity requirements?

Under EPA's Transportation Conformity Regulations, RTP and FTIP must pass five federally required transportation conformity tests:

1) **Consistency with RTP:** The FTIP project listing must be consistent with the policies, programs, and projects of the RTP.

2) **Regional emission analysis:** RTP and FTIP regional emissions must not exceed the MVEBs in the applicable SIPs. Where there are no EPA approved conformity budgets, an interim emission test is used for conformity. Under the interim test, the build scenario's emission must be less than or equal to the no-build scenario's emissions and/or the build scenario's emission must be less than or equal to the base year emissions.

3) **Timely implementation of transportation control measures (TCMs):** RTP and FTIP must demonstrate that TCM project categories listed in the applicable SIPs have been given funding priority, implemented on schedule, and, in case of any delays, any obstacles to implementation have been overcome. TCMs are explicitly committed measures in SIPs and federally enforceable. TCMs provide criteria pollutants emission reduction benefits that are relied upon to meet federal air quality standards and transportation conformity budgets.

4) **Financial constraint:** RTP and FTIP must be financially constrained, in other words, RTP and FTIP must be based on reasonable estimates about future revenues. In addition, in the first two years of the FTIP, projects must be limited to those for which funds are known to be available and committed.

5) **Interagency consultation and public involvement:** SCAG's Transportation Conformity Working Group (TCWG) must serve as the primary regional forum for interagency consultation for all matters related to regional and project-level transportation conformity. RTP also must go through an extensive and on-going public outreach effort throughout RTP development process including public workshops, release for public review, public hearings, and adoption by the Regional Council. All public comments must be documented and responded to.

4. Who makes transportation conformity determination?

MPO governing boards (i.e., Regional Council) make initial transportation conformity determination. Final conformity determination must be made at the federal level by FHWA/FTA, in consultation with EPA.

5. What criteria pollutants are subject to transportation conformity in the SCAG region?

Seven health-based NAAQSs for three different criteria air pollutants [ground-level ozone, particulate matter including PM2.5 and PM10, and carbon monoxide or (CO)] are applicable to the SCAG region. Twenty-five areas within the SCAG are designated by EPA as nonattainment or maintenance areas under these NAAQSs. As a result, the SCAG region includes many areas subject to stringent federal air quality planning requirements under the CAA, making it particularly complex and challenging to meet transportation conformity requirements in the region.

6. What are the roles of federal, state, and regional/local agencies?

Many public agencies are involved in the transportation conformity process. At the federal level, EPA is responsible for setting the NAAQS, conformity regulations, adequacy finding or approval of MVEBs, approval of California's emissions estimation model [EMission FACtors (EMFAC)], and SIP approval. EPA concurrence is also required for TCM substitution upon adoption by SCAG's Regional Council. FHWA/FTA is responsible for approving the final transportation conformity determination in consultation with EPA.

At the state level, CARB is responsible for developing EMFAC model and MVEBs and submitting SIPs to EPA. CARB concurrence is also required for TCM substitution upon adoption by SCAG's Regional Council. Caltrans is responsible for reviewing and approving financial constraint of FTIP.

At the regional and local levels, SCAG staff performs transportation conformity analysis, and Regional Council adopts initial conformity determination. SCAG staff also prepares final TCM substitution report in collaboration with project lead county transportation commissions (CTCs). TCM substitution also requires adoption by SCAG Regional Council. The five local air districts in the SCAG region develop and adopt their respective air quality management plans (AQMPs)/SIPs. There are six CTCs in the SCAG region, and the CTCs submit transportation projects for inclusions in the RTP and FTIP. Five of the six CTCs are also responsible for preparing initial needed TCM substitution analysis.

7. What is a transportation conformity failure?

A regional transportation conformity failure can be triggered by either a transportation conformity lockdown or a transportation conformity lapse and can cause serious consequences. A transportation

conformity lockdown occurs when the transportation conformity determinations of the current RTP/SCS and FTIP are still valid, but no new transportation conformity determination may be made, for example, during the 2025 statewide transportation conformity lockdown triggered by federal revocation of California's waivers for mobile source regulations. Under a transportation conformity lockdown, only transportation projects in the current conforming RTP/FTIP can move forward. However, transportation projects including critical transit projects in the region that are not exempt from the transportation conformity requirements and that need to receive federal approval or funding are impacted because SCAG cannot add new or amend non-exempt projects under a lockdown. No new RTP/FTIP amendment is allowed except for exempt projects.

A transportation conformity lapse grace period is triggered when a conformity determination is not made according to the required frequency or expires. For example, the federal conformity determination for SCAG's current RTP/SCS (Connect SoCal 2024) is valid through May 10, 2028. If a conformity lockdown occurs and cannot be resolved before that date, SCAG will not be able to receive the federal conformity determination for the next RTP/SCS (Connect SoCal 2050). As a result, upon expiration of the current conformity determination after May 10, 2028, the SCAG region would enter a one-year conformity lapse grace period. Under the one-year conformity grace period, only projects in the current conforming RTP/FTIP or the most recent conforming RTP/FTIP can move forward. No new RTP/FTIP amendment is allowed except for exempt projects.

A conformity lockdown will lead to a conformity lapse grace period if not resolved before the regional conformity determination expires. When the grace period ends, and there is still no resolution, a transportation conformity lapse occurs, meaning that the conformity determination for a regional transportation plan or program has expired and, as a result, there is no conforming regional transportation plan or program. A conformity lapse impacts non-exempt projects (mainly mixed-flow capacity expansion projects) as well as TCM projects (HOV lanes, transit, active transportation, and ITS projects) not in an approved SIP unless these projects have received federal authorization prior to the lapse. Specifically, these impacted projects can neither receive federal funding, federal approval, nor be amended into the regional transportation plan or program.

II. Anticipated Transportation Conformity Lockdown

SCAG is facing an anticipated transportation conformity lockdown due to its inability to meet the Coachella Valley ozone MVEBs included in the South Coast AQMD's 2022 AQMP, which has been updated in 2026. The following portion provides background information on the AQMP and informs SCAG policy committee members of the key issue and cause of an anticipated lockdown, its timing, and next steps.

1. Background on the South Coast AQMD's 2022 AQMP and the 2026 Updates

Pursuant to the federal CAA, the South Coast AQMD's 2022 AQMP is prepared to attain the federal 2015 (70 ppb) 8-hour ozone NAAQS, which is the most stringent federal ozone standard to date, and applies to both the South Coast Air Basin and the Coachella Valley, both of which are designated Extreme nonattainment areas under the federal CAA.

As required by state law, the 2022 AQMP was jointly prepared by three responsible agencies to integrate their respective comprehensive control strategies and measures: the South Coast Air Quality Management District (South Coast AQMD), which is the lead agency for the AQMP; CARB; and SCAG.

The 2022 AQMP included an important component relevant to regional transportation planning and federal transportation conformity requirements – the South Coast Air Basin MVEBs and the Coachella Valley MVEBs for the 2015 (70 ppb) 8-hour ozone NAAQS. The MVEBs set upper limits for emissions from on-road transportation activities. Upon approval or found adequate by EPA, the MVEBs established as part of the AQMP process and adopted in the final State Implementation Plan (SIP) will become the functioning emission budgets for transportation conformity for the South Coast Air Basin and the Coachella Valley for SCAG's future RTP, FTIP, and amendments or updates to such plans/programs.

SCAG is also responsible for writing a portion of the 2022 AQMP on the region's RTP/SCS and TCMs as they relate to air quality. In November 2022, SCAG's EEC and Regional Council respectively approved transmittal of SCAG's portions for inclusion in the South Coast AQMD's 2022 AQMP, which was subsequently submitted to EPA for approval through CARB in February 2023.

Over the past years, significant modeling and regulatory changes have occurred. The changes included: 1) the new EPA-approved EMFAC model – EMFAC2021 replacing the previously EPA-approved EMFAC2017 model; 2) the EMFAC2021 off-model adjustment factors that EPA approved on November 21, 2025 to remove the estimated emissions benefits attributed to California's Advanced Clean Trucks (ACT), Zero-Emission Airport Shuttle, Heavy-Duty Vehicle and Engine Emission Warranty and Maintenance Provisions (Warranty Phase 1), and Heavy-Duty Omnibus (Omnibus) regulations from EMFAC2021 in response to the joint resolutions enacted under the Congressional Review Act and signed into law on June 12, 2025; 3) the EMFAC2021 Heavy-Duty Inspection and Maintenance (HD I/M) off-model adjustment factors that EPA approved on May 6, 2026 in response to EPA's February 2026 final action in partially approving and partially disapproving California's HD I/M Regulation. Since EPA has not yet acted on the South Coast AQMD's 2022 AQMP, CARB staff made updates to the air plan to reflect these changes and is scheduled to present the updated plan to the CARB Board for adoption on May 28, 2026.

2. Key Issue and Cause

The updated 2022 AQMP includes unworkable MVEBs for the Coachella Valley. SCAG is unable to demonstrate regional transportation conformity with the Coachella Valley MVEBs, although transportation conformity can be demonstrated in the South Coast Air Basin. When and if the unworkable Coachella Valley MVEBs are approved or found to be adequate by EPA, and since SCAG is unable to demonstrate transportation conformity in the Coachella Valley, a regional transportation conformity lockdown could happen. This would impact non-exempt transportation projects including critical transit projects in the region from moving forward because SCAG would not be able to add new or amend non-exempt projects under a lockdown.

3. Timing

At the time of this staff report, the South Coast AQMD's updated 2022 AQMP is scheduled for adoption by CARB Board at the May 28, 2026 meeting and then subsequently will be submitted to EPA for approval. EPA approval of the Coachella Valley MVEBs is required before SCAG is required to use them in regional transportation conformity determinations. There is no clear timeline at this time for when a regional transportation conformity lockdown would happen since it depends on how quickly EPA approves the plan, including the associated Coachella Valley MVEBs. EPA has up to 18 months to act on the air plan after receiving it from CARB and has taken longer to make an action in the past. Nonetheless, the scheduled adoption by CARB Board in May will set in motion an anticipated transportation conformity lockdown for the SCAG region.

It is important to note that there is no immediate impact on SCAG's RTP and FTIP development this year. Specifically, there is no impact on the 2027 FTIP or Connect SoCal 2024 Amendment 2 that SCAG is developing for anticipated federal approval this year. In addition, there are no anticipated impacts on transportation projects supporting the LA28 Olympics and Paralympics Games.

4. Next steps

The anticipated transportation conformity challenge is not caused by a failure of SCAG's regional policies or commitments. SCAG staff at all levels take the anticipated transportation conformity lockdown from unworkable Coachella Valley MVEBs very seriously and are addressing the anticipated conformity challenge proactively. Because the anticipated transportation conformity lockdown is not immediately impacting SCAG's RTP, FTIP, and their amendments, SCAG staff have been engaging and will continue to engage with CARB and EPA, along with all involved or impacted agencies across federal, state, and regional levels. It is important to bring the region together through strengthened, multi-agency coordination to identify a workable path forward before the SCAG region experiences another regional transportation conformity lockdown.

In addition, at SCAG staff's request, staff representatives of CARB and EPA have reported and will continue to report on the status of their respective public process of the South Coast AQMD's updated 2022 AQMP at SCAG's monthly Transportation Conformity Working Group meetings.

Finally, SCAG conformity and FTIP staff will conduct internal evaluations to gain a preliminary understanding of potential impacts from a regional transportation conformity lockdown and will provide periodic updates to the Energy and Environment Committee and/or the Transportation Committee in the future as appropriate.

FISCAL IMPACT:
None.

OVERVIEW OF TRANSPORTATION CONFORMITY AND ANTICIPATED REGIONAL CONFORMITY CHALLENGES

June 4, 2026

Purpose

- Overview of transportation conformity
- Anticipated transportation conformity challenge

Key Requirements under Federal Clean Air Act

- Ensure that regional transportation plans, programs, and projects are consistent with or "conform" to air quality plans for meeting federal emission standards

- Regional transportation plans (RTP/FTIP) and federally supported projects:
  - Do not cause new air quality violations
  - Do not worsen existing violations
  - Do not delay attainment of air quality standards

Key Requirements under EPA's Conformity Regulations

- Transportation conformity must be demonstrated:
  - New regional transportation plan (RTP/FTIP)
  - Significant RTP/FTIP amendments
  - Triggered by EPA's actions on air plans and emissions budgets

- Five federally required conformity tests:
  - Consistency with RTP
  - Regional emissions analysis
  - Timely implementation of transportation control measure (TCMs) projects
  - Financial constraint
  - Interagency consultation & public involvement

SCAG Region is Subject to Transportation Conformity

7
Federal health-based standards

3
Criteria Pollutants
Ozone, PM 2.5, PM 10, Carbon Monoxide

25
Nonattainment or maintenance areas

Roles of Federal, State, and Regional/Local Agencies

FEDERAL	STATE	REGIONAL / LOCAL
U.S. EPA Sets federal air quality standards; approves CA's emission model, conformity budgets, air plans	**California Air Resources Board** Develops emission model & conformity budgets; submits SIPs	**SCAG** Conducts conformity analysis; Regional Council adopts initial determination
FHWA/FTA Approves final conformity determination	**Caltrans** Approves FTIP financial constraint Submits RTP/FTIP projects to FHWA/FTA	**Local Air Districts** Develop and adopt their own air plans
		County Transportation Commissions Submits RTP/FTIP projects

Recent Modeling & Regulatory Changes

New Emission Model (Nov 2022)	State's Withdrawal of Waiver Request (Jan 2025)	Federal Revocation of Waivers under Congressional Review Act (Jun 2025)	EPA Rulemaking Action (Feb 2026)
• EMFAC2021	• Advanced Clean Fleets	• Advanced Clean Cars II • Advanced Clean Trucks • Heavy-Duty Omnibus • Zero Emissions Airport Shuttle Bus • Heavy-Duty Vehicle and Engine Emission Warranty	• Heavy-Duty Inspection and Maintenance Regulation

Background: Anticipated Transportation Conformity Challenge

- South Coast AQMD 2022 Air Plan
  - Addresses most stringent federal ozone standard (2015 8-hour standard)
  - Applies to both South Coast Air Basin and Coachella Valley
  - Both areas are designated Extreme nonattainment areas by EPA
  - Includes SCAG transportation portion (e.g., RTP/SCS and TCMs)
  - Conformity budgets setting upper limits for emissions from on-road transportation activities
  - SCAG/CARB/EPA respective public process in 2022-2023
- 2026 updates
  - Updated conformity budgets to reflect recent changes
  - Before CARB Board for adoption on 5/28/2026

Key Issue, Timing, and Consequences

- SCAG cannot meet Coachella Valley budgets*
- CARB's 5/28 Board action sets in motion a regionwide conformity lockdown
- No immediate impacts on SCAG this year on 2027 FTIP, Connect SoCal 2024 Amendment 2
- No impacts on LA28 Olympics and Paralympics transportation projects
- Uncertainty for SCAG's next RTP and FTIP development
- Lockdown jeopardizes federal transportation investments and delays federally supported transportation projects, including transit projects

***Anticipated transportation conformity challenge is not caused by a failure of SCAG's regional policies or commitments**

Next Steps

- SCAG continued engagement with involved and impacted agencies across all levels
- CARB and EPA reporting to SCAG's monthly Transportation Conformity Working Group meetings
- Periodic updates to EEC and TC as appropriate

THANK YOU!

For more information, please visit:

www.scag.ca.gov

AGENDA ITEM 5

REPORT

Southern California Association of Governments
June 4, 2026

To: EEC – Energy and Environment Committee
TC – Transportation Committee

EXECUTIVE DIRECTOR'S APPROVAL

Kome Ajise

From: Priscilla Freduah-Agyemang, Senior Regional Planner
(213) 236-1973, agyemang@scag.ca.gov

Subject: Innovative Clean Transit Regional Assessment Study Update

RECOMMENDED ACTION EEC:
Information Only – No Action Required

RECOMMENDED ACTION FOR TC:
Receive and File

STRATEGIC PRIORITIES:
This item supports the following Strategic Priority 1: Establish and implement a regional vision for a sustainable future. 3: Spur innovation and action through leadership in research, analysis and information sharing.

EXECUTIVE SUMMARY:
In December 2018, the California Air Resources Board (CARB) adopted the Innovative Clean Transit regulation (Cal. Code Regs. Tit. 13 § 2023.1), requiring all public transit agencies to transition to 100-percent zero-emission bus (ZEB) fleets by 2040. The regulation mandates that agencies develop ZEB Rollout Plans and meet phased purchase requirements based on agency size. To support the region in meeting these requirements, SCAG launched the Innovative Clean Transit Regional Assessment Study (Study) in summer 2025. The Study evaluates the readiness of Southern California transit operators to implement their ZEB Rollout Plans and the readiness of the region to transition to zero emission transit fleets. At the June 4 meeting, staff will provide an update on the Study's progress and share key elements of the draft final report, which is being finalized this summer. A draft of the report will be shared with the committee upon completion.

BACKGROUND
The SCAG region includes an extensive transit network spanning more than 33,000 miles of local, express, and bus rapid transit routes. Transit plays a critical role in regional mobility, air quality, and climate goals. Transportation accounts for approximately 37 percent of statewide greenhouse gas emissions, and expanding clean, reliable transit service is essential to meeting state and regional climate commitments. In April 2023, the Regional Council adopted Resolution No. 23-654-5

establishing the Clean Transportation Technology Policy, which supports the development and deployment of zero-emission transportation technologies while maintaining technology neutrality.

In December 2018, the California Air Resources Board (CARB) adopted the Innovative Clean Transit regulation (ICT, Cal. Code Regs. Tit. 13 § 2023.1), requiring all public transit agencies to transition to 100-percent zero-emission bus (ZEB) fleets by 2040. The regulation mandates that agencies develop ZEB Rollout Plans and meet phased purchase requirements based on agency size. The ICT regulation complements SCAG's Clean Transportation Technology Policy by requiring all public transit agencies to transition to ZEB fleets by 2040. Recognizing the scale and complexity of this transition, SCAG initiated the ICT Regional Assessment Study to evaluate regional readiness, identify gaps, and support a coordinated approach to meeting the 2040 deadline.

STUDY OVERVIEW

The Study assesses the status of ZEB Rollout Plan development and implementation across the region, infrastructure needs and utility coordination challenges, funding gaps and long-term cost considerations, workforce and training needs, and opportunities for regional collaboration and shared solutions. It also identifies where SCAG can provide targeted support, including convening partners, sharing best practices, developing toolkits, and aligning regional planning with state priorities. The Study's findings are organized around five themes: regulatory readiness, infrastructure planning, sustainable funding, workforce capacity, and integrated planning.

Goals and Objectives

The Study's goals were developed to align with SCAG's mobility, communities, environment, and economy goals outlined in Connect SoCal. The goals of include:

- **Goal 1**: Strengthen Regulatory Readiness and Technology Advancement with the Objective of Accelerating ZEB Deployment.
- **Goal 2**: Improve Infrastructure Planning with the Objective of Building Reliable, Resilient ZEB Infrastructure.
- **Goal 3**: Create Sustainable Funding Pathways with the Objective of Closing ZEB Funding Gaps.
- **Goal 4**: Build Long-Term Staffing Capacity with the Objective of Developing a Skilled Workforce.
- **Goal 5**: Promote Integrated Planning with the Objective of Leveraging Synergies with Zero-Emission Trucks (ZETs).

DRAFT FINAL REPORT

The draft report organizes the Study's key findings into a series of clearly structured sections, drawing on insights from existing conditions, best practices, stakeholder engagement, and the assessment of challenges and opportunities. The report begins with an introduction and background section outlining the Study's purpose and regulatory context, followed by a best practice review that examines key considerations related to ZEB deployment, including planning, technology, infrastructure, operations, workforce, and funding. It then presents an overview of existing

conditions in the SCAG region, covering rollout plans, deployment trends, infrastructure, policies, and workforce resources. A subsequent section evaluates regional readiness based on research, surveys, and stakeholder interviews, and is followed by a discussion of key challenges and opportunities associated with advancing ZEB deployment.

IMPLEMENTATION ACTION PLAN

The Study includes an implementation action plan, which provides a roadmap to help transit agencies in the SCAG region transition to ZEB. It organizes near-, mid-, and long-term actions around the five key goals, identifies opportunities for SCAG to support, and highlights helpful toolkits to support implementation. This implementation plan is grounded in the regional priorities established in Connect SoCal and is also designed to align with and support the State's zero-emission deployment priorities outlined in the Transit Transformation Task Force (TTTF) Final Report. Together, these frameworks reinforce the importance of advancing ZEB in a way that supports mobility, communities, environment, and economic prosperity, while also addressing related needs in funding, workforce, asset management, and capital planning. The implementation action plan is organized according to the following timelines:

- **In the short term (0–2 years)**, the focus is on building a strong foundation by helping transit agencies clarify technology pathways, learn from early adopters, and make use of practical tools and guidance.
- **In the mid-term (3–5 years)**, the emphasis shifts toward stronger coordination and greater scale, including regular peer exchange, more standardized procurement approaches, and repeatable support resources that help smaller agencies move from planning to deployment.
- **In the long term (5+ years)**, the focus is on institutionalizing the regional transition through common metrics, a regionwide readiness dashboard, and data-driven coordination that may identify where delays are systemic and where targeted action may help unlock progress across the region.

IMPLEMENTATION TOOLKIT

The Study also includes an implementation toolkit, which contains a series of focused factsheets designed to translate complex data, technologies, processes, and state policies into accessible, actionable information to support transit agencies across the SCAG region. The toolkit includes visual graphics, storyboards, and sample best practices on the following topics:

Zero-Emission Bus Technology Selection Framework	Smart Charging
Charging/Refueling Station Permitting Checklist	Utility Engagement Starter Kit
Available Funding Opportunities to Transit Agencies	Workforce Development for Transit Agencies

STAKEHOLDER ENGAGEMENT

Since the last update to the SCAG policy committees in March 2026, the project team shared updates on the Implementation Action Plan and Draft Final Report with the Regional Transit Technical Advisory Committee (RTTAC) at its April meeting. The project team also received feedback from the bus manufacturers and public utility providers, which has been incorporated into the draft final report and the toolkit developed as part of this Study.

NEXT STEPS

Following EEC and TC committee review, staff will incorporate committee member feedback into the final report. Early this summer, SCAG staff will share the final report, along with a toolkit developed as part of the Study, with the committees and the Regional Transit Technical Advisory Committee. Following the Study's finalization, SCAG will continue working with transit agencies, utilities, state partners, and regional stakeholders to support implementation of the recommended actions. SCAG will also explore opportunities to integrate findings into Connect SoCal implementation, regional funding strategies, and ongoing technical assistance.

FISCAL IMPACT:

None.

ATTACHMENT(S):

1. PowerPoint Presentation - Innovative Clean Transit Regional Assessment Study
2. Innovative Clean Transit Regional Assessment Study – Draft Final Report Highlights

Innovative Clean Transit (ICT) Regional Assessment Study

June 4, 2026

WWW.SCAG.CA.GOV

Background

- Innovative Clean Transit (ICT) Regulation, 2018 (Cal. Code Regs. Tit. 13 § 2023.1)
  - California Air Resources Board
- Two Primary Requirements
  1. Zero Emission Bus (ZEB) rollout plan
  2. ZEB purchase requirements for transit agencies of different sizes by year

ICT Study Objectives

- Assess ongoing efforts to transition to clean transit solutions throughout the region, including evaluations of existing fleets and supporting infrastructure.
- Identify any existing gaps within ZEB rollout plans and explore avenues for improvement and enhancement.
- Explore opportunities for enhanced coordination across agencies to streamline efforts and maximize effectiveness.
- Identify potential roles for SCAG in facilitating the transition to clean transit, including exploring opportunities for assistance through funding sources administered by SCAG

Scope of Work

Task 1
- **Project Management**
  - Kick-off meeting
  - Monthly meetings

Task 2
- **Engagement**
  - RTTAC and TC engagement
  - Targeted outreach

Task 3
- **Project Research**
  - Best practices
  - Existing conditions
  - Readiness, challenges, and opportunities

Task 4
- **Implementation Action Plan**
  - Goals & objectives
  - ZEB deployment toolkit
  - Implementation action plan

Task 5
- **Final Study Report**
  - Final report incorporating key findings

Committee Engagement

Targeted Outreach

Research & Analysis

Challenges & Opportunities

Challenges

- Gaps in ZEB Rollout Plans and planning frameworks
- Operational and technological barriers
- Policy, regulatory, and institutional challenges
- Funding, and physical barriers

Opportunities

- Strengthening Rollout Plans and planning integration
- Improving decision-making and across – agency collaboration
- Synergies with Zero Emission Trucks (ZET)

Readiness

Policy and Planning	Deployment and Infrastructure	Institutional, Workforce, and Operational Readiness	Funding and Financial Readiness

• The SCAG region is relatively advanced
• Larger agencies are more likely to treat plans as strategic roadmaps
• Smaller agencies often use them mainly for compliance
	• Multiple "leaders" with sizable ZEB fleets
	• Three-tier pattern:
	  • Mature implementers
	  • Emerging implementers
	  • Planning-phase agencies
		• Larger agencies have dedicated staff
		• Smaller agencies have lean teams
		• Growing recognition of new skill needs
			• Competitive yet uncertain landscape of fundings
			• Long-term financial impacts need to be fully understood

Overall, the readiness is uneven across agencies and across dimensions

Timeline & Milestone Structure

Near-term (0-2 years)

- Clarify technology pathways, learn from early adopters, and develop practical toolkits

Mid-Term (3-5 years)

- Encourage strong coordination, joint procurement, and support resources

Long-term (5+ years)

- Foster regional program and corridor buildout

Goal 1: Strengthen Regulatory Readiness and Technology Advancement

- **Objective**
  - Accelerate ZEB deployment
- **Key Stakeholders**
  - CARB (lead)
  - Transit agencies (lead)
  - SCAG
  - California Energy Commission (CEC), Caltrans, CalSTA and Air District
  - Bus Original Equipment Manufacturers (OEMs) and industry partners
  - Department of General Services (DGS)
  - State legislature

Near-Term

- Develop a ZEB tech selection playbook (done)
- Establish up a peer lesson learned exchange

Mid-Term

- Launch a ZEB implementation forum
- Develop a joint procurement guide
- Provide ZEB asset management and technical assistance

Long-Term

- Maintain a regionwide readiness dashboard

Goal 2: Improve Infrastructure Planning

- **Objective**
  - Build Reliable, Resilient ZEB Infrastructure.
- **Key Stakeholders & Roles**
  - Transit Agencies (lead)
  - SCAG
  - Utilities
  - California Public Utilities Commission (CPUC)
  - Infrastructure vendors

Near-Term

- Develop smart charging factsheet (done)
- Deploy utility engagement starter kit (done)
- Deploy permitting & approval checklist (done)

Mid-Term

- Develop resiliency guidance for depots
- Create regional collaboration

Long-Term

- Launch corridor co-location mapping tool

Goal 3: Create Sustainable Funding

- **Objective**
  - Close ZEB funding gaps
- **Key Stakeholders & Roles**
  - State agencies (lead)
  - SCAG
  - Transit agencies
  - OEMs
  - Utilities
  - Private partners

Near-Term

- Regional funding roadmap (done)

Mid-Term

- Start a grant application accelerator
- Strategic legislative and policy advocacy

Long-Term

- Coordinate shared infrastructure financing
- Explore public private partnerships for scalable delivery

Goal 4: Build Long-Term Staffing Capacity

- **Objective**
  - Develop a skilled workforce
- **Key Stakeholders & Roles**
  - State agencies (lead)
  - SCAG
  - Transit agencies
  - Training providers

Near-Term

- Develop a workforce training factsheet (done)
- Define priorities roles and identify gaps
- Develop a regional training catalog

Mid-Term

- Launch local workforce training partnerships

Long-Term

- Build a sustained regional workforce pipeline with repeatable cohorts

Goal 5: Promote Integrated Planning

- **Objective**
  - Leverage Synergies with ZETs
- **Key Stakeholders & Roles**
  - Transit agencies (lead)
  - Municipal, and freight & port fleet owners (lead)
  - SCAG

Near-Term

- Define “low-risk, high-value” shared opportunities
- Coordinate utility upgrade planning

Mid-Term

- Initiate coordination with relevant partners

Long-Term

- Integrate findings into corridor strategies

ZEB Deployment Toolkit - Overview

ZEB Tech Selection Framework

Utility Engagement Starter Kit

Permitting and Approval Checklist

Smart Charging Factsheet

Funding Roadmap

Workforce Training Factsheet

Final Report Outline

- Executive Summary
- Context and Study Objectives
- Best Practices Findings
- Assessment of Existing Conditions
- Regional Readiness Assessment
- Challenges and Opportunities
- Implementation Action Plan
- Appendices, including Study Toolkit

Next Steps

- Share revised draft final report with Regional Transit TAC for feedback.
- Finalize Report (ready by end of June).
- Continue regional coordination with transit agencies, utilities, state partners, and stakeholders to support implementation of recommended actions.
- Integrate study findings into Connect SoCal.

SCAG

THANK YOU!

For more information, please visit:

https://scag.ca.gov/transit-program

IMPLEMENTATION ACTION PLAN

The implementation action plan provides a roadmap to help transit agencies in the SCAG region transition to Zero-Emission Bus (ZEB) fleets. It organizes near-, mid-, and long-term actions around five key goals, identifies opportunities for SCAG to support, and highlights helpful toolkits to support implementation.

Goals and objectives of this work include:

- **Goal 1**: Strengthen Regulatory Readiness and Technology Advancement with the Objective of Accelerating ZEB Deployment.
- **Goal 2**: Improve Infrastructure Planning with the Objective of Building Reliable, Resilient ZEB Infrastructure.
- **Goal 3**: Create Sustainable Funding Pathways with the Objective of Closing ZEB Funding Gaps.
- **Goal 4**: Build Long-Term Staffing Capacity with the Objective of Developing a Skilled Workforce.
- **Goal 5**: Promote Integrated Planning with the Objective of Leveraging Synergies with Zero-Emission Trucks (ZETs).

The actions to support implementation are organized according to the following timeline:

- **In the short term (0–2 years)**, the focus is on building a strong foundation by helping transit agencies clarify technology pathways, learn from early adopters, and make use of practical tools and guidance.
- **In the mid-term (3–5 years)**, the emphasis shifts toward stronger coordination and greater scale, including regular peer exchange, more standardized procurement approaches, and repeatable support resources that help smaller agencies move from planning to deployment.
- **In the long term (5+ years)**, the focus is on institutionalizing the regional transition through common metrics, a regionwide readiness dashboard, and data-driven coordination that may identify where delays are systemic and where targeted action may help unlock progress across the region.

Goal 1: Strengthen Regulatory Readiness and Technology Advancement

This goal is to help transit agencies meet ICT ZEB purchase requirements and accelerate ZEB deployment. Under ICT, beginning in 2029, 100% of new purchases by transit agencies must be ZEBs, with a goal for full transition by 2040. This goal also encourages embedding ZEB Rollout Plans into broader agency planning such as Short-Range Transit Plans and Capital Improvement Plans (SRTPs and CIPs) so fleet and infrastructure needs are reflected in capital programming and budgeting cycles, which strengthens implementation.

This goal will help transit agencies comply with ICT requirements and accelerate ZEB deployment through coordinated planning, strong regional collaboration, and practical implementation support. This includes integrating ZEB needs into agency capital and budget planning, improving coordination among transit agencies, the California Air Resources Board (CARB), SCAG, funding partners, Original Equipment Manufacturers (OEMs), and procurement entities, and reducing barriers through shared tools, standardized approaches, peer learning, and technical assistance.

This goal aligns with Strategy 11 of the Transit Transformation Task Force (TTTF), which encourages review and discussion of ICT requirements and solutions. The TTTF strategy also recommends establishing a dedicated task force to develop recommendations for the administration and legislature.

The key stakeholders for Goal 1 and their roles are summarized in Table 1.

Table 1: Goal 1 Stakeholder Roles and Responsibilities

Goal/Objective	Agency/Entity	Responsibilities
Goal 1: Strengthen Regulatory Readiness and Technology Advancement **Objective:** Accelerate ZEB deployment	CARB (Lead)	Administer ICT requirements and provide regulatory oversight and guidance; also provide funding support.
	Transit agencies (Lead)	Implement ZEB Rollout Plans, purchase ZEBs, and integrate fleet and infrastructure needs into budgets and capital plans.
	SCAG	Convene partners, coordinate regional support, and connect agencies; use established committees as forums to share lessons learned.
	California Energy Commission (CEC), Caltrans, CalSTA and Air District	Provide funding support and implementation assistance.
	Bus OEMs and Industry Partners	Supply buses, equipment, and technical support.
	Department of General Services (DGS)	Support joint procurement by leveraging cooperative contracts, aggregate demand, and streamlined bus and equipment purchasing.
	State Legislature	Consider funding, policy, and statutory actions needed to support compliance.

Goal 1 Action Plans

Near-Term

ZEB Technology Selection Framework: The toolkit developed as part of this study includes a ZEB technology selection framework with a standardized framework to help agencies choose between Battery Electric Bus (BEB) and Fuel Cell Electric Bus (FCEB). It includes a decision matrix based on topography, route length, and depot electrical capacity. The toolkit also establishes the foundational guidance for technology selection and may be supported by transit agencies and OEMs to provide ongoing refinement. The toolkit will be published along with the final report.

Peer Lessons Learned Exchange: This exchange could be a centralized sharing of lessons learned from early adopters such as Antelope Valley Transit Authority (AVTA) (with the first 100% electric fleet) and Foothill Transit (a pioneer in Fuel Cell Electric Bus (FCEB) and on-route charging). SCAG may facilitate peer exchanges through communication channels such as the Regional Transit Technical Advisory Committee (RTTAC), while transit agencies provide the essential technical leadership by sharing their experiences and lessons learned.

Mid-Term

ZEB Implementation Forum: Unlike the near-term peer exchange, which may focus exclusively on transit agencies, this forum aims to engage with a broader set of stakeholders, including transit agencies, OEMs, utilities, and private vendors. It could be conducted quarterly or at another agreed cadence and structured as a series of high-intensity troubleshooting sessions rather than standard presentations. The goal is to resolve immediate deployment bottlenecks through multi-faceted information exchange. For example, a clinic could facilitate a dialogue on how agencies may align standardized vehicle specifications to help OEMs streamline production and reduce lead times. By convening the entities responsible for both the bus and the infrastructure, these sessions would transform isolated challenges into coordinated solutions. For this effort, SCAG may take the lead to facilitate the forum using its convening power and secure support from transit agencies, utilities, OEMs and other private vendors.

Joint Procurement Guide: In alignment with TTTF Strategy 13, which advocates for the stabilization of the ZEB manufacturing industry, this action focuses on aggregating demand to reduce unit costs and move toward standardized vehicle and infrastructure specifications. California's Department of General Services (DGS) may take the lead role in this effort by developing and administering statewide cooperative contracts and joint procurement vehicles. SCAG could explore a partnership with DGS by conducting regional analysis and pursuing funding for further study on this topic. Collaboratively, they may identify common service profiles and technical requirements across Southern California transit agencies, such as battery capacity, charging plug types, and warranty terms. Transit agencies and OEMs may also provide support to streamline the process.

ZEB Asset Management & Technical Assistance: To address the complexities of project delivery and long-term asset maintenance, state agencies have already been taking actions and providing an opt-in technical assistance program for transit agencies. For example, CARB provides free, one-on-one technical assistance through Cal Fleet Advisor (CFA), which is administered by CALSTART on behalf of CARB. This action aims to build specialized capacities to assist with lifecycle management and the strategic prioritization of routes for fleet transitions. This action would include offering expert guidance on whether specific routes are most suitable for BEB or FCEB technology, as recommended by TTTF Strategy 15. In this context, SCAG's role is to serve as a regional facilitator and liaison, helping connect transit agencies with state-led resources and coordinating with the State so that support is directed to agencies with the most immediate needs.

Long-Term

Regionwide Readiness Dashboard: A centralized publicly accessible dashboard may be helpful to visualize the zero-emission transition across all transit agencies in the region or statewide. This tool would serve as a strategic roadmap, moving beyond the number of ZEBs deployed to track the granular health of the transition, including fleet electrification milestones, infrastructure installation and construction progress, and utility interconnection stages. State agencies, such as CARB and CalSTA, are best positioned to lead this effort, as they already collect and maintain mandatory compliance data through ICT reporting and SB 125 accountability programs. State agencies may analyze the regional data. They may also utilize the dashboard's regional data to identify where delays are systemic and where targeted intervention is required to unlock progress. SCAG may support this process through convening, communications, or analysis.

Goal 2: Improve Infrastructure Planning

This goal focuses on building a reliable and resilient infrastructure network that keeps pace with the region's ZEB transition. Infrastructure includes not only charging and hydrogen fueling systems, but also the utility-side upgrades—such as transformers and distribution improvements—required to support them. A central objective is ensuring that infrastructure delivery aligns with bus procurement schedules by clarifying lead times and coordinating early with utilities and infrastructure vendors. The goal also emphasizes designing for scalability and resilience from the outset, including installing electrical backbones that support future expansion and incorporating storage or backup power where feasible.

The strategy for this goal is to strengthen early coordination, improve utility and permitting readiness, and plan for long-term reliability. This requires aligning transit agencies, utilities, SCAG, the CPUC, and infrastructure vendors around shared timelines, consistent planning assumptions, and scalable facility design so that charging and fueling systems are ready when buses arrive and remain dependable during disruptions or extreme events. Table 2 is a summary of the key stakeholders and their roles for Goal 2.

Table 2: Goal 2 Stakeholder Roles and Responsibilities

Goal/Objective	Agency/Entity	Responsibilities
Goal 2: Improve Infrastructure Planning **Objective:** Build Reliable, Resilient ZEB Infrastructure	Transit agencies (Lead)	Install infrastructure to support ZEB deployment.
	SCAG	Use convening power to align regional utility planning and advocate for streamlined local permitting.
	Utilities	Execute grid upgrades in alignment with agency timelines.
	CPUC	Establish accountability mechanisms and standardized timelines for utilities to support transit.
	Infrastructure Vendor	Provide hardware and charge management software.

Goal 2 Action Plans

Near-Term

Actions focus on eliminating administrative delays and ensuring that agencies and utilities speak the same technical language.

Smart Charging Factsheet: The toolkit included in this study explains what smart charging is, why it matters, and how it helps improve reliability, operational readiness, and cost control for electric bus charging. It also outlines how smart charging works in practice, summarizes common charging strategies. It gives examples of transit agency deployments and example vendors used in transit smart charging systems.

Utility Engagement Starter Kit. The toolkit included in this study helps transit agencies identify the right utility points of contact. Transit agencies may want to clarify with their respective utility provider if a dedicated transportation electrification or fleet team is defined, so coordination stays consistent as fleet phasing, upgrade schedules, and funding timelines evolve. It includes a high-level concept package that agencies may share up front to start productive conversations and reduce back-and-forth. The toolkit also provides a generic utility data request checklist to support an initial assessment.

Permitting and Approval Checklist. The toolkit included in this study aims to reduce rework and schedule uncertainty. It navigates local permitting for both EV charging and hydrogen fueling by highlighting California streamlining laws and centralizing where to find specific requirements for each jurisdiction. The guide outlines common application essentials, including project narratives, site layouts, equipment specifications, and detailed electrical or station plans, to ensure submittals are complete on the first try. This effort aligns with TTTF Strategy 9, which focuses on shortening capital project delivery timelines by streamlining environmental review, permitting, and decision-making.

Mid-Term

Actions at this stage move beyond basic power connections to focus on long-term reliability and resilience to strengthen the regional network.

Resiliency Guidance for Depots: Transit agencies may lead this effort to ensure future-proofing their facilities against grid outages and extreme weather. This action echoes SCAG's Regional Resilience Toolkit, which emphasizes integrating resilience into transportation and infrastructure planning.

- **Managed Charging Readiness:** Transit agencies may explore software and hardware that may throttle power during peak heatwaves, protecting the grid while ensuring bus power meets needs for services.
- **Backup Power and Facility Resilience:** Transit agencies may evaluate battery storage, microgrids, and other energy resilience measures to maintain depot operations and charging capability during outages.
- **Contingency Planning:** Transit agencies may establish backup protocols for service continuity during wildfires, seismic events, or extended blackouts to ensure the region stays mobile during emergencies.

Regional Collaboration: While SCAG may encourage agencies to work together,

reducing the burden of standalone projects, large transit agencies may take the lead role to implement regional collaboration, examples include:

- **Shared Utility Upgrades:** Transit agencies may coordinate with utilities and offer multi-agency agreements where two or more operators share a high-capacity circuit or substation, splitting the cost and accelerating the utility construction timeline.
- **Joint Infrastructure Delivery:** TTTF Strategy 14 recommends shared use charging or fueling hubs, allowing agencies to offer mutual aid or emergency backup power to one another across jurisdictional lines. Transit agencies could lead this effort, with support from SCAG on high-level planning, and state agencies could assist with funding prioritization.

Long-Term

Corridor Co-Location Mapping Tool: Development of a GIS-based mapping tool may synchronize regional transit infrastructure demand with available grid and fueling capacity. This tool would serve as the regional master plan for infrastructure deployment by:

- **Identifying Phased Grid Upgrades:** The tool may include GIS map layers of transit depot, hubs and routes with utility substation data (e.g. Integration Capacity Analysis (ICA) map from Investor-Owned Utilities) to flag where the grid is strongest and where it is most constrained. Transit agencies may use this data to coordinate with utilities on a phased schedule of bulk upgrades, ensuring high-power circuits are ready before multiple agencies in the same corridor hit peak demand.
- **Pinpointing Shared-Use Opportunities:** By mapping points where different operators converge, such as common transit hubs or adjacent service boundaries, transit agencies may identify prime locations for shared-use charging or hydrogen fueling stations.
- **Optimizing Regional Redundancy:** The mapping tool may identify geographic gaps in fueling and power. This would enable a regional strategy for placing backup infrastructure in locations that may serve as emergency islands for multiple agencies during regional disasters or grid failures, ensuring the system remains resilient at scale.

This effort may be co-led by SCAG (assuming funding permits) and utilities, with inputs and strong support from transit agencies, particularly about data sharing.

Goal 3: Create Sustainable Funding Pathways

Goal 3 focuses on securing the financial resources needed to sustain the ZEB transition by closing the gap between today's budgets and future requirements. The scale of required investment is substantial, especially as agencies move toward full fleet conversion. Early pilot success helps de-risk implementation, but it does not materially reduce long-term capital and operating funding needs. One-time or short-term awards are not enough to support a systemwide transition because ZEB costs remain higher than conventional fleets. To respond, the region needs a clearer understanding of lifecycle costs and specific funding gaps, with long-term maintenance and energy costs prioritized alongside bus purchases. State agencies establish, align, and administer funding

programs for ZEBs and supporting infrastructure. They are also responsible for improving funding flexibility and predictability and streamlining grant processes, as recommended by TTTF Strategy 4, Strategy 7, Strategy 8 and Strategy 26. SCAG may play an advocacy role by supporting broadened available funding opportunities, enhancing regional project competitiveness through alignment with state and federal priorities, and promoting collaborative approaches including multi-agency grant applications.

The strategy for this goal is to build a stable and coordinated funding framework that may support the full cost of the ZEB transition over time, not just early pilot projects. State agencies may lead by aligning and administering funding programs for vehicles and infrastructure, while SCAG may support regional coordination, project prioritization, and funding strategy development. Transit agencies may define needs, develop fundable projects, and secure and manage awards, with support from OEMs, utilities, and private partners to reduce costs, improve project readiness, and expand financing options for vehicles and supporting infrastructure. The key stakeholders and their roles for this goal are summarized in Table 3.

Table 3. Goal 3 Stakeholder Roles and Responsibilities

Goal/Objective	Agency/Entity	Responsibilities
Goal 3: Create Sustainable Funding Pathways **Objective:** Close ZEB Funding Gaps	State agencies (Lead)	Establish, align, and administer funding programs for ZEBs and supporting infrastructure.
	SCAG	Support regional coordination, project prioritization, and funding strategy development.
	Transit agencies	Define needs, develop projects, secure and manage funding.
	OEMs	Align production, pricing, and sourcing with grant requirements, while providing compliant options and identifying cost-saving opportunities.
	Utilities	Reduce upfront infrastructure costs, provide technical support.
	Private Partners	Offer financing models.

Goal 3 Action Plans

Near-Term

Actions focus on establishing basic funding clarity and making sure all agencies are aware of immediate funding opportunities.

Regional ZEB Funding Roadmap: The toolkit developed with this study provides a funding roadmap that summarizes the various funding streams available for ZEB deployment. This summary categorizes funds for vehicles and infrastructure, clarifies funding eligibility, and stackable opportunities.

Mid-Term

As agencies prepare for larger deployments, a grant application accelerator may reduce the administrative burden of complex federal applications.

Grant Application Accelerator: A regional accelerator program may be launched to provide a suite of grant-related resources. This effort may be led by SCAG by sharing

best practices on standardized project narratives and templates, permit processes to deploy ZEBs, and cost-benefit analysis through the Regional Transit TAC. SCAG may continue to provide support letters to partners and transit agencies for grant applications.
Strategic Legislative and Policy Advocacy: State agencies may lead efforts to secure and align flexible, long-term funding for ZEB vehicles, charging and refueling infrastructure, and related implementation costs. SCAG may play an important supporting role by elevating shared regional needs in state and federal budget discussions and advocating for funding structures that better reflect transit agencies' real deployment challenges.

Long-Term
Shared Infrastructure Financing: Transit agencies may explore joint-use financing models where multiple agencies share the cost of a single high-capacity charging or hydrogen fueling hub, leveraging economies of scale to lower the per bus cost of the transition.
Public-Private Partnerships for Scalable Delivery: Transit agencies may take the lead role to explore P3 delivery models, including Infrastructure-as-a-Service or Charge-as-a-Service (CaaS).

Goal 4: Build Long-Term Staffing Capacity

Goal 4 focuses on building the skilled workforce needed to sustain the ZEB transition. Workforce capacity is a gating issue as agencies scale from pilots to full fleet conversion. Training needs are growing fast across maintenance, operations, safety, and facility roles. Smaller and capacity-limited agencies particularly face bigger barriers because they have fewer staff and limited access to structured training. To respond, the region needs clearer and more consistent workforce pathways, with shared core competencies and common certifications. This goal aligns with TTTF Strategy 17 and Strategy 18 which emphasizes workforce recruitment, retention and development.

The strategy for this goal is to create a more consistent and accessible workforce development system that equips transit agencies with the staff and skills needed to support long-term ZEB operations. This includes defining shared training needs across agencies, improving coordination among state agencies, SCAG, transit operators, and training providers, expanding practical and role-based training opportunities, and building repeatable pathways that make it easier for agencies of all sizes to recruit, train, and retain qualified personnel. Table 4 outlines the key stakeholders and roles for Goal 4.

Table 4: Goal 4 Stakeholder Roles and Responsibilities

Goal/Objective	Agency/Entity	Responsibilities
Goal 4: Build Long-Term Staffing Capacity **Objective:** Develop a	State agencies (Lead)	Lead ZEB workforce planning, training coordination, and barrier reduction.
	SCAG	Coordinate regional partners and identify shared training needs through RTTAC.
	Transit agencies	Define workforce needs and participate in training.
	Training Providers	Deliver training program.

Skilled Workforce		

Goal 4 Action Plans

Near-Term

Actions may focus on defining what skills the region needs first and make training options easy to find and use.

Workforce Development Toolkit: The toolkit developed as part of this study provides a roadmap and starting point to help transit agencies identify ZEB workforce needs, target role specific training, and prepare staff for safe and effective zero-emission fleet deployment.

Priority Roles and Gap Identification: Transit agencies define priority job roles such as bus operators, maintenance technicians, facilities staff, and safety leads. SCAG may support transit agencies by sharing best practices through the RTTAC. This effort may be led by transit agencies. This effort may also be supported by ongoing work by the CARB through the reporting toolkit and associated database.

Regional Training Catalog and Minimum Competencies: This effort would develop a regional catalog of existing training programs and entry requirements. This could also include a minimum competency checklist, so training providers and agencies align on baseline expectations. CARB already conducts several trainings through CALSTART and may lead this effort by providing a list of trainings and schedules to SCAG to be shared with the RTTAC and other transit stakeholders. Transit agencies may also coordinate additional trainings and competency efforts in partnership with American Public Transportation Association (APTA), California Transit Association (CTA), and California Transit Training Consortium (CTTC).

Mid-Term

As deployments scale, actions may be shifted from planning to delivery by launching hands-on partnerships that create more training seats and reduce burden on small agencies.

Local Training Partnerships and Hands-On Modules: Local partnerships may be formed among community colleges, OEMs, labor partners, and transit agencies. These partnerships may deliver hands-on modules using real equipment and real depot conditions.

Train-the-Trainer and Shared Instruction Capacity: Train-the-trainer options are encouraged so transit agencies may build internal champions. Transit agencies may coordinate to pool instructors and equipment across agencies, so smaller agencies may participate without building their own programs from scratch. This may be facilitated through existing groups like SunLine Transit's West Coast Center of Excellence in Zero-Emission Technology (CoEZET), and Southern California Zero Emission Transit Forum.

Long-Term

Over the long-term, state agencies may lead the development of a sustained training pipeline that repeats every year and grows with the market. SCAG may support this work by coordinating regionally and helping connect agencies to shared training resources. Transit agencies may participate by identifying workforce needs and enrolling staff.

Repeatable Regional Cohorts: Recurring cohorts may be established for each key role, with consistent schedules and clear prerequisites. This may create a predictable pipeline for hiring and upskilling across the region.

Shared Training Capacity and Facilities: Shared access to training sites, labs, and mobile training units may increase training throughput and reduce duplication of equipment purchases.

Workforce Funding: State agencies may lead workforce funding by developing and aligning funding programs that support ZEB training. They may also coordinate funding opportunities across agencies so workforce development may be sustained over time, rather than relying on one-time efforts.

Goal 5: Promote Integrated Planning

Goal 5 focuses on leveraging synergies with zero-emission trucks (ZETs) to accelerate the ZEB transition. This goal is supported by TTTF Strategy 14, which encourages shared maintenance and infrastructure support. Transit and freight are moving through similar market constraints. They face similar charging and hydrogen refuel infrastructure installation, utility upgrade timelines, interconnection queues, and construction and permitting bottlenecks, as well as vehicle procurement challenges. They also rely on workforce skills involving high-voltage safety, diagnostics, and facility operations. To respond, the region may consider approaches towards prioritizing shared solutions that reduce cost and schedule risk, while aligning with freight scale to improve investment efficiency. Coordination and corridor planning is a highly important pathway to collaborate on so that transit depots and truck hubs consider and align with grid readiness needs and utility upgrade plans. Identification of joint-use opportunities for charging or hydrogen hubs where operators converge may lower costs and improve reliability. Finally, the region may assess opportunities to consider shared workforce and safety training programs where competencies overlap.

The strategy for this goal is to encourage early and coordinated planning among transit agencies, municipal and freight and fleet owners/operators, and SCAG to identify and advance shared opportunities that may support both ZEB and ZET deployment. Planning is especially important because transit and freight depend on similar infrastructure, utility upgrades, workforce skills, and corridor conditions. Early coordination may help reduce costs, avoid schedule conflicts, and improve long-term system reliability. Stakeholder roles and responsibilities for this goal are summarized in Table 5.

Table 5: Goal 5 Stakeholder Roles and Responsibilities

Goal/Objective	Agency/Entity	Responsibilities

Goal 5: Promote Integrated Planning **Objective:** Leverage Synergies with ZETs	Transit agencies (Lead)	Identify operationally feasible shared sites, set transit-priority rules.
	Municipal, and Freight Fleet Owners/Operators (Lead)	Identify operationally feasible shared sites, bring demand for shared-use projects, help define site operating rules.
	SCAG	Convene partners, help identify promising corridors and candidate sites through existing SCAG Sothern California Zero Emission Truck Infrastructure Study (ZETI) and future research.

Goal 5 Action Plans

Near-Term

SCAG may focus on identifying shared ZEB and ZET opportunities that can quickly lead to agency and industry coordination and collaboration in considering implementation feasibility and do not create service risk for transit.

Define Low-Risk, High-Value Shared Opportunities: Leading by transit agencies and municipal and private truck fleet/operator partners, SCAG may coordinate and assist to identify workforce opportunities and pinpoint where shared charging or hydrogen may improve utilization and lower unit costs. Involving local community college trade programs, unions that represent the region's skilled workforce, and potential funding partners would strengthen the partnership, support comprehensive program design, and help fill workforce gaps.

Mid-Term

As interest grows, state agencies may shift from concept to execution by organizing coordination and creating tools that make partnerships repeatable.

Partner Coordination and Pilot Documentation: Utilities, transit agencies, and municipal and freight stakeholders may align on timelines and operational assumptions, and document pilot structures.

Across Sector Collaboration: Transit agencies and truck fleet owners/operators may work together to clarify roles, governance, and cost allocation concepts. They may draft templates that reduce transaction costs for future shared projects, as feasible. They may also work with state agencies and training providers to develop a workforce model that defines shared core competencies and safe cross-training expectations for bus and truck technicians, as well as installation and maintenance for charging equipment and distribution infrastructure.

Long-Term

In the long-term, SCAG may embed coordination and collaboration that works during the near- and mid-term into regional planning and keep it current as conditions change.

Integrate Findings into Corridor Strategies: SCAG may coordinate with transit agencies and truck fleet owners/operators to document pilot results and integrate lessons

learned into planning documents, such as Connect SoCal, SCAG's Comprehensive Sustainable Freight Plan (On the Move), and other mode specific efforts. Over time, these insights may help inform or prioritize funding programs. State agencies may identify opportunities to build one workforce pipeline for both buses and trucks to reduce duplication. It could also support intentional cross-training that reflects differences in vehicle designs and maintenance cycles, while building a more flexible workforce as both markets mature.

Influence Market Policies in Sustainable Energy and Procurement: SCAG's convening and summary of findings and outcomes through the short- and medium-term action plans can support policy changes in the utility space around rate setting, policy and program design from the CPUC, utilities, regulators and local jurisdictions. SCAG may also convene transit fleets to develop standard models for OEM equipment that meet the majority of a sector's needs, which can reduce costs and lead times for vehicles or infrastructure that is typically a high-cost or long lead time custom order.

AGENDA ITEM 6

REPORT

Southern California Association of Governments
June 4, 2026

To: EEC - Energy and Environment Committee

EXECUTIVE DIRECTOR'S APPROVAL

From: Katherine Lample, Senior Regional Planner
213-630-1448, lamplek@scag.ca.gov

Subject: Data Center Energy and Water Use

RECOMMENDED ACTION:
Information Only – No Action Required

STRATEGIC PRIORITIES:
This item supports the following Strategic Priority 1: Establish and implement a regional vision for a sustainable future. 3: Spur innovation and action through leadership in research, analysis and information sharing.

EXECUTIVE SUMMARY:
This information item will include presentations from an expert panel on the growth of data centers and their potential to affect energy reliability, water resources, and regional resilience within the SCAG region. As demand for artificial intelligence and other data-intensive technologies increases, data centers are emerging as a significant source of electricity load and water use, introducing new considerations for coordinated regional planning. This discussion will explore how emerging industry trends and public policy may shape the role of data centers in energy and water system resilience.

BACKGROUND:
The rise of artificial intelligence and other emerging applications, such as cryptocurrency, has accelerated demand for data centers and increased their scale and intensity. These facilities require substantial electricity and, in many cases, water for cooling. As growth continues, data centers are drawing greater attention for their resource demands. In California, this trend raises important considerations for both energy systems and water management, particularly in resource-constrained areas.

Nell Green Nylen is a Senior Research Fellow with the Wheeler Water Institute at UC Berkeley's Center for Law, Energy & the Environment (CLEE). Her work focuses on adapting water management institutions to meet critical needs and build resilience for people and ecosystems. She coauthored a recent report on Regulating Data Center Water Use in California.

Eric Masanet is a Professor and Mellichamp Chair of Sustainability Science for Emerging Technologies at the University of California, Santa Barbara. He has been researching and informing policymakers on the technology, infrastructure, and resource requirements of data centers for two decades. He is also a Faculty Scientist in the Energy Analysis & Environmental Impacts Division at Lawrence Berkeley National Laboratory.

FISCAL IMPACT:
None.

ATTACHMENT:
1. PowerPoint Presentation – Masanet – Data Center Energy Use
2. PowerPoint Presentation – Green Nylen – Data Center Water Use

Data center energy use: methods, drivers, and future directions

Eric Masanet, Ph.D.

emasanet@ucsb.edu

Mellichamp Chair in Sustainability Science for Emerging Technologies

Head, Industrial Sustainability Analysis Laboratory

University of California, Santa Barbara

Southern California Association of Governments, Los Angeles, June 4th, 2026

http://industrial-sustainability.org/

UC SANTA BARBARA

How sustainable are data centers?

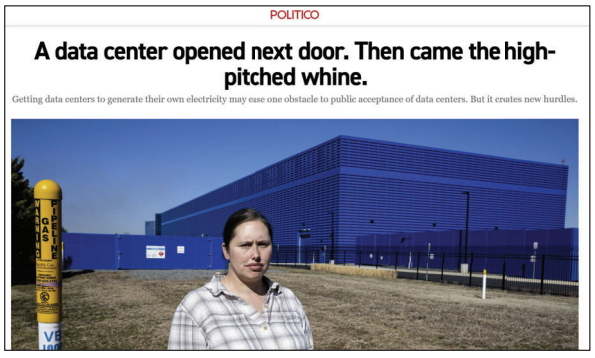

The New York Times

A.I.'s Insatiable Appetite for Energy

The soaring electricity demands of data centers and A.I. are straining the grid in some areas, pushing up emissions and slowing the energy transition.

Share full article

https://www.nytimes.com/2024/07/11/climate/artificial-intelligence-energy-usage.html


POLITICO

A data center opened next door. Then came the high-pitched whine.

Getting data centers to generate their own electricity may ease one obstacle to public acceptance of data centers. But it creates new hurdles.

https://www.politico.com/news/2026/03/11/data-centers-ai-electricity-virginia-00815219


The New York Times

Microsoft Pledged to Save Water. In the A.I. Era, It Expects Water Use to Soar.

Driven by the artificial intelligence frenzy, Microsoft is internally projecting that water use at its data centers will more than double by 2030 from 2020, including in places that face shortages.

https://www.nytimes.com/2026/01/27/technology/microsoft-water-ai-data-centers.html


VCU news

FEB. 12, 2026

Northern Virginia data center air pollution rivals power plant emissions, VCU research finds

Diesel-powered backup generators already have significant impact, which could dramatically expand within currently permitted levels.

https://news.vcu.edu/article/northern-virginia-data-center-air-pollution-rivals-power-plant-emissions

UC SANTA BARBARA

Data center energy analysis: a day in the life

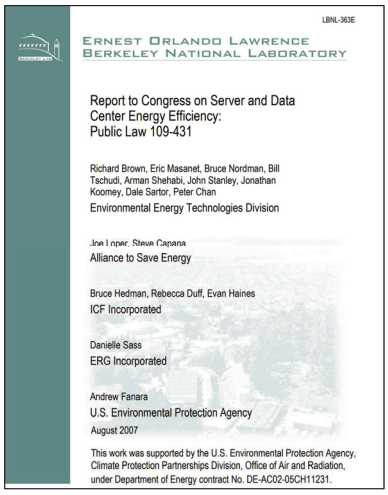
Key questions for the energy systems analyst:

- How much energy do data centers and AI currently use?

Data center energy analysis: a day in the life

Key questions for the energy systems analyst:

- How much energy do data centers and AI currently use?



LBNL-363E

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY

Report to Congress on Server and Data Center Energy Efficiency: Public Law 109-431

Richard Brown, Eric Masanet, Bruce Nordman, Bill Tschudi, Arman Shehabi, John Stanley, Jonathan Koomey, Dale Sartor, Peter Chan
Environmental Energy Technologies Division

Joe Loper, Steve Capana
Alliance to Save Energy

Bruce Hedman, Rebecca Duff, Evan Haines
ICF Incorporated

Danielle Sass
ERG Incorporated

Andrew Fanara
U.S. Environmental Protection Agency

August 2007

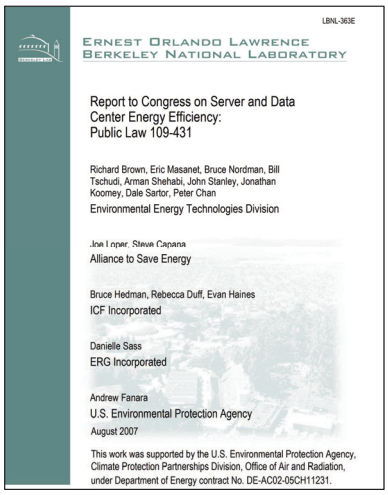
This work was supported by the U.S. Environmental Protection Agency, Climate Protection Partnerships Division, Office of Air and Radiation, under Department of Energy contract No. DE-AC02-05CH11231.

UC SANTA BARBARA

Data center energy analysis: a day in the life

Key questions for the energy systems analyst:

- How much energy do data centers and AI currently use?
- What is the trajectory of future energy demand and what are the implications for emissions and the grid?


LBNL-363E

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY

Report to Congress on Server and Data Center Energy Efficiency: Public Law 109-431

Richard Brown, Eric Masanet, Bruce Nordman, Bill Tschudi, Arman Shehabi, John Stanley, Jonathan Koomey, Dale Sartor, Peter Chan
Environmental Energy Technologies Division

Joe Loper, Steve Capana
Alliance to Save Energy

Bruce Hedman, Rebecca Duff, Evan Haines
ICF Incorporated

Danielle Sass
ERG Incorporated

Andrew Fanara
U.S. Environmental Protection Agency

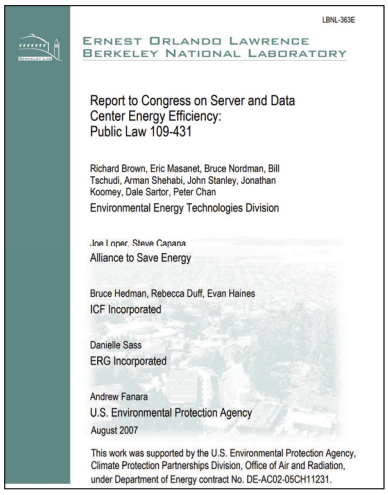
August 2007

This work was supported by the U.S. Environmental Protection Agency, Climate Protection Partnerships Division, Office of Air and Radiation, under Department of Energy contract No. DE-AC02-05CH11231.

Data center energy analysis: a day in the life

Key questions for the energy systems analyst:

- How much energy do data centers and AI currently use?
- What is the trajectory of future energy demand and what are the implications for emissions and the grid?
- How might technology, policy, and behavior "bend the curve?"


LBNL-363E

ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL LABORATORY

Report to Congress on Server and Data Center Energy Efficiency: Public Law 109-431

Richard Brown, Eric Masanet, Bruce Nordman, Bill Tschudi, Arman Shehabi, John Stanley, Jonathan Koomey, Dale Sartor, Peter Chan
Environmental Energy Technologies Division

Joe Loper, Steve Capana
Alliance to Save Energy

Bruce Hedman, Rebecca Duff, Evan Haines
ICF Incorporated

Danielle Sass
ERG Incorporated

Andrew Fanara
U.S. Environmental Protection Agency

August 2007

This work was supported by the U.S. Environmental Protection Agency, Climate Protection Partnerships Division, Office of Air and Radiation, under Department of Energy contract No. DE-AC02-05CH11231.

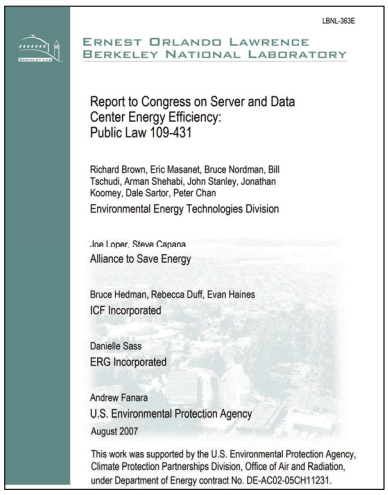
UC SANTA BARBARA

Data center energy analysis: a day in the life

Key questions for the energy systems analyst:

- How much energy do data centers and AI currently use?
- What is the trajectory of future energy demand and what are the implications for emissions and the grid?
- How might technology, policy, and behavior "bend the curve?"

Data requirements, model complexity, and uncertainty


LBNL-363E

ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY

Report to Congress on Server and Data Center Energy Efficiency: Public Law 109-431

Richard Brown, Eric Masanet, Bruce Nordman, Bill Tschudi, Arman Shehabi, John Stanley, Jonathan Koomey, Dale Sartor, Peter Chan
Environmental Energy Technologies Division

Joe Loper, Steve Capana
Alliance to Save Energy

Bruce Hedman, Rebecca Duff, Evan Haines
ICF Incorporated

Danielle Sass
ERG Incorporated

Andrew Fanara
U.S. Environmental Protection Agency

August 2007

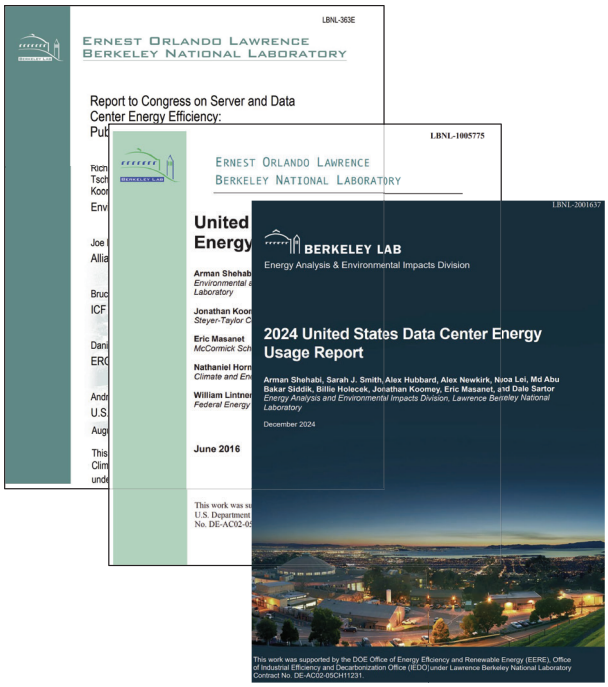
This work was supported by the U.S. Environmental Protection Agency, Climate Protection Partnerships Division, Office of Air and Radiation, under Department of Energy contract No. DE-AC02-05CH11231.

Data center energy analysis: a day in the life

Key questions for the energy systems analyst:

- How much energy do data centers and AI currently use?
- What is the trajectory of future energy demand and what are the implications for emissions and the grid?
- How might technology, policy, and behavior "bend the curve?"

Data requirements, model complexity, and uncertainty



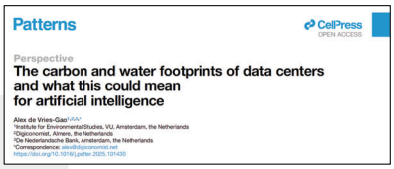
UC SANTA BARBARA

The state of data center reporting

Table 1. Availability of environmental performance metrics in sustainability reports of selected companies

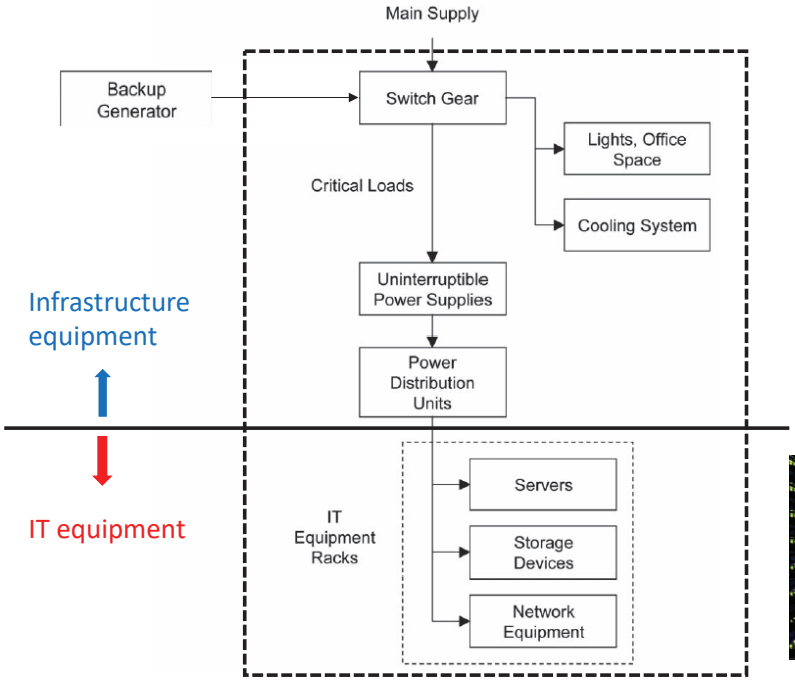
		Company (year of most recent environmental report publication) and reporting period										
		Amazon (2025)	Apple (2025)	Baidu (2025)	ByteDance	CoreWeave	Google (2025)	Meta (2025)	Microsoft (2025)	Oracle (2025)	Tesla (2025)	Tencent (2025)
Reporting metric	Reporting scope	CY 2024	FY 2024	CY 2024	(N/A[a])	(N/A[a])	CY 2024	CY 2024	FY 2024	CY 2023	CY 2024	CY 2024
Electricity consumption	total company	no	yes	yes	no	no	yes	yes	yes	yes	yes	yes
	total data centers	no	yes	no	no	no	yes	yes	no	no	no	no
	individual data centers	no	yes	no	no	no	no	yes	no	no	no	no
	AI workloads	no	no	no	no	no	no	no	no	no	no	no
Scope-2 emissions (location based)	total company	yes	yes	yes	no	no	yes	yes	yes	yes	yes	yes
	total data centers	no	no	no	no	no	no	yes	no	no	no	no
	individual data centers	no	no	no	no	no	no	yes	no	no	no	no
	AI workloads	no	no	no	no	no	no	no	no	no	no	no
Scope-2 emissions (market based)	total company	yes	yes	yes	no	no	yes	yes	yes	yes	yes	yes
	total data centers	no	yes	no	no	no	no	yes	no	no	no	no
	individual data centers	no	yes	no	no	no	no	yes	no	no	no	no
	AI workloads	no	no	no	no	no	no	no	no	no	no	no
Direct water consumption	total company	no	yes	yes	no	no	yes	yes	yes	yes	no	yes
	total data centers	WUE only	no	WUE only	no	no	yes	yes	WUE only	no	no	no
	individual data centers	no	no	no	no	no	yes	no	no	no	no	no
	AI workloads	no	no	no	no	no	no	no	no	no	no	no
Indirect water consumption	total company	no	no	no	no	no	no	yes	no	no	no	no
	total data centers	no	no	no	no	no	no	no	no	no	no	no
	individual data centers	no	no	no	no	no	no	no	no	no	no	no
	AI workloads	no	no	no	no	no	no	no	no	no	no	no

Assessment is based on the most recent available environmental report on October 19, 2025. Companies may report data over calendar years (CY, Jan. 1–Dec. 31) or fiscal years (FY). In the latter case, the reported data does not correspond to a calendar year, as companies may choose the start and end dates. Apple's fiscal year 2024 ended on September 28, 2024. Microsoft's fiscal year 2024 ended on June 30, 2024.
[a]Company does not publish environmental reports.



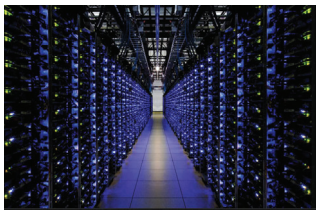
UC SANTA BARBARA

How do data centers use energy?



Source: Brown et al. (2007).

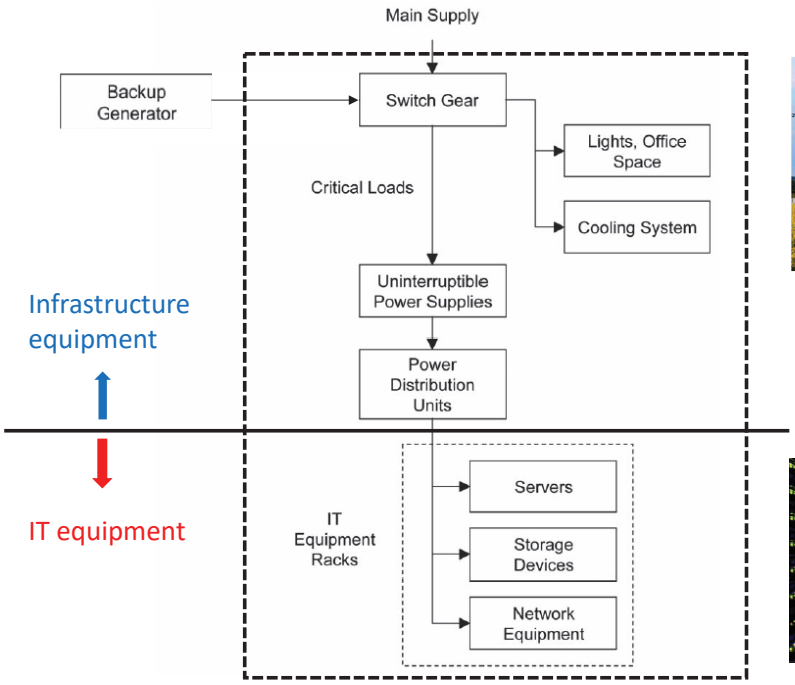
Typical data center electrical components

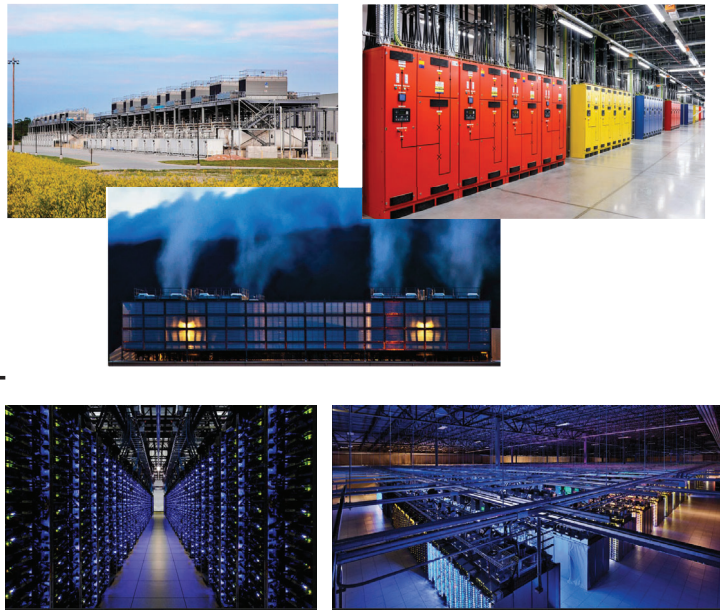


https://datacenters.google/discover-more/photo-gallery/

UC SANTA BARBARA

How do data centers use energy?





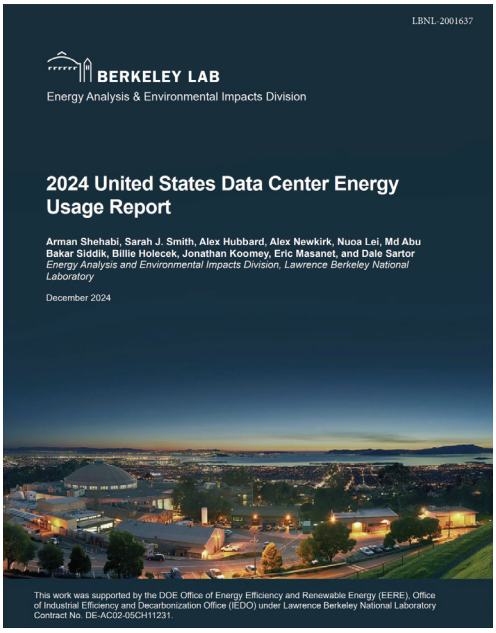
https://datacenters.google/discover-more/photo-gallery/

Source: Brown et al. (2007).

Typical data center electrical components

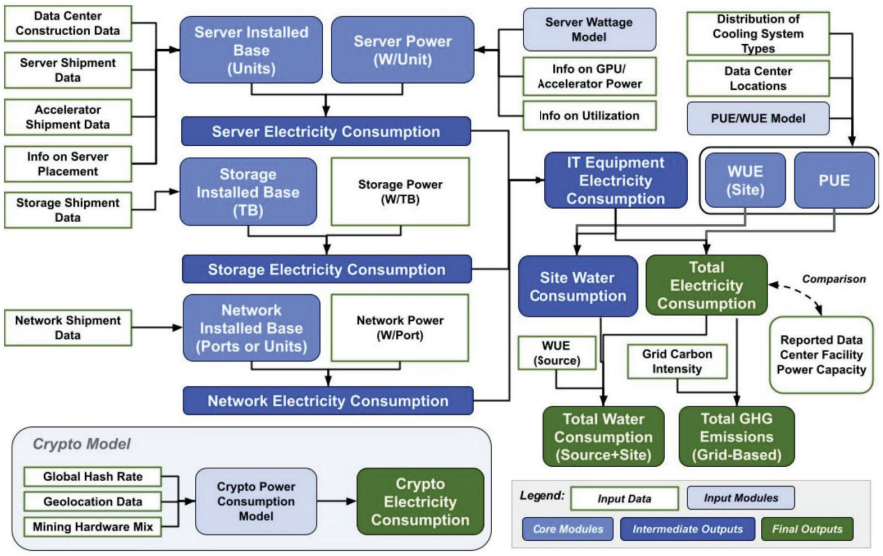
UC SANTA BARBARA

Models needed!



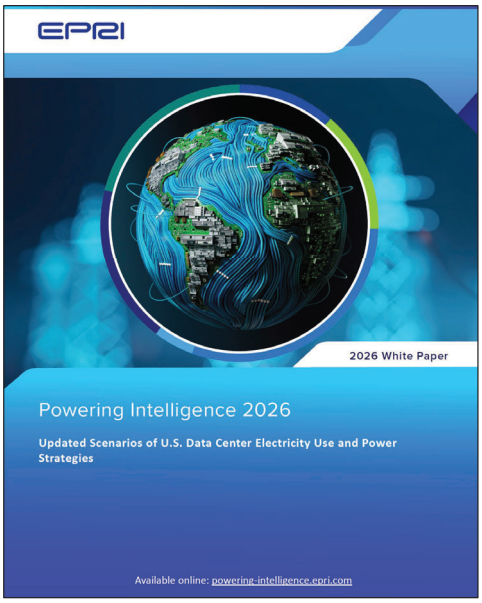
https://escholarship.org/uc/item/32d6m0d1

The LBNL "bottom-up" data center energy model



UC SANTA BARBARA

Electricity demand: a new era



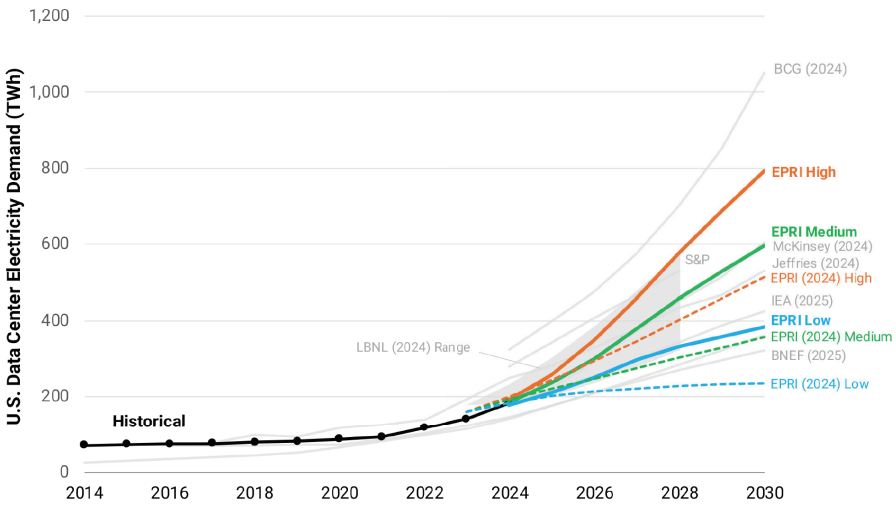
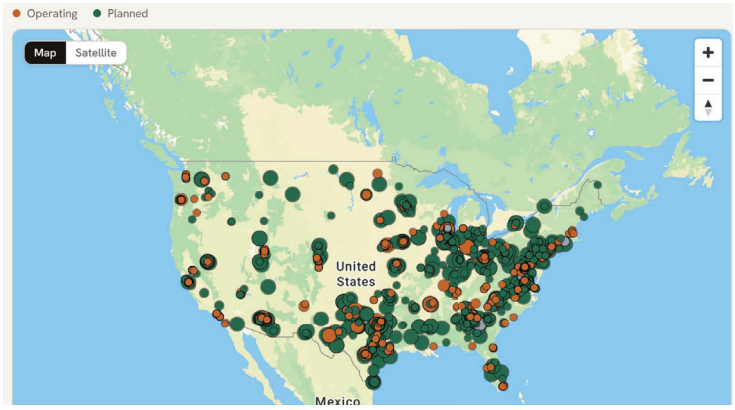
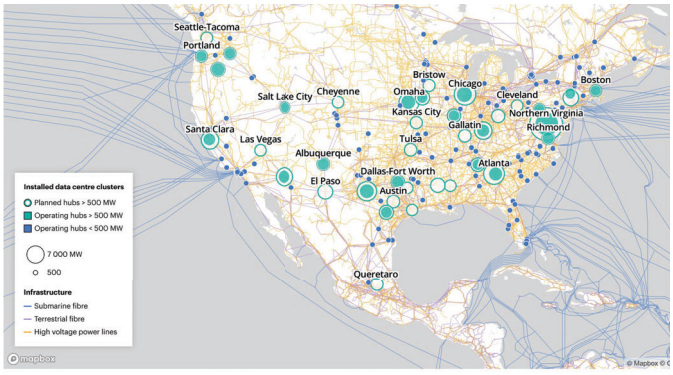


Figure ES-2. Comparison of U.S. data center annual electricity consumption projections. *Projections in this study span a similar range to the LBNL (2024) report. Shaded band shows scenarios from LBNL (2024); lines show recent external estimates, including BCG (2024), BloombergNEF (2025), EPRI (2024a), IEA (2025), Jefferies (2024), McKinsey (2024), S&P (2024). EPRI estimates include small- and large-scale data centers as well as cryptocurrency mining.*

California: the state of play

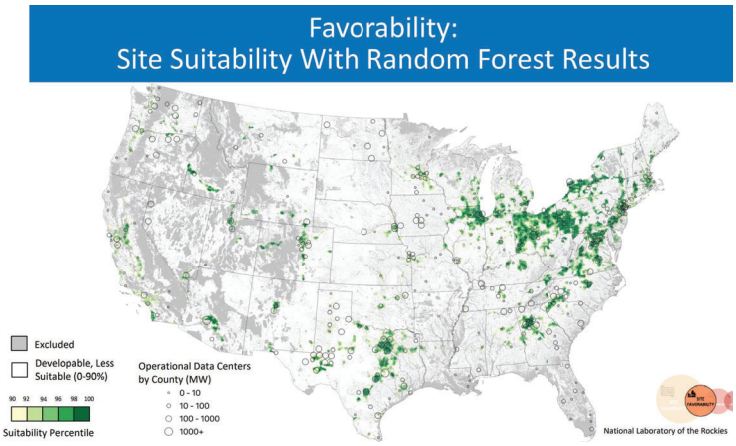


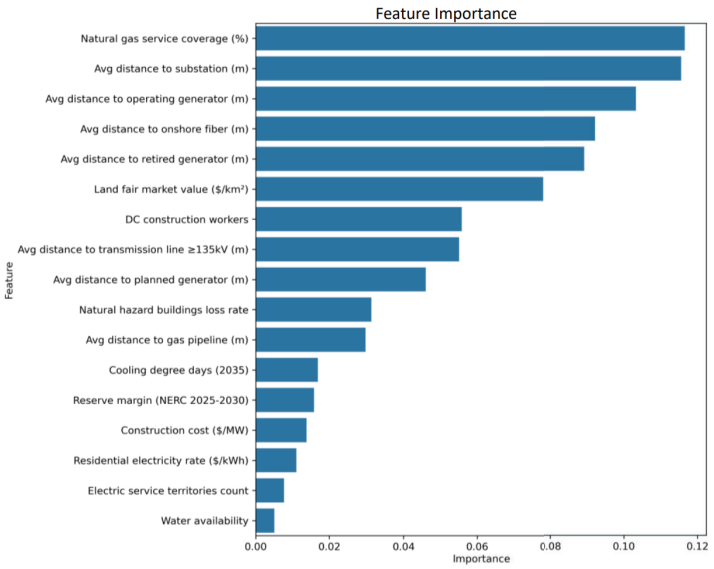
https://cleanview.co/data-centers/us



https://www.iea.org/data-and-statistics/data-tools/energy-and-ai-observatory?

Data center siting

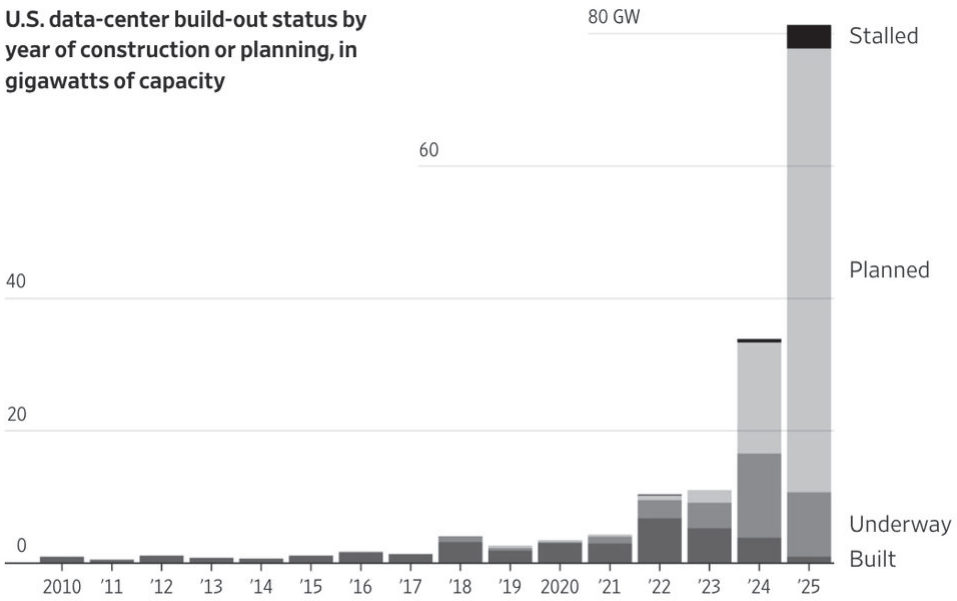




*Feature importance does not necessarily reverse-engineer the real-life decision markers; it ranks features highly if they improve the model's discriminative ability. Collinearity may also influence the relative importance of features.

https://docs.nlr.gov/docs/fy26osti/99256.pdf

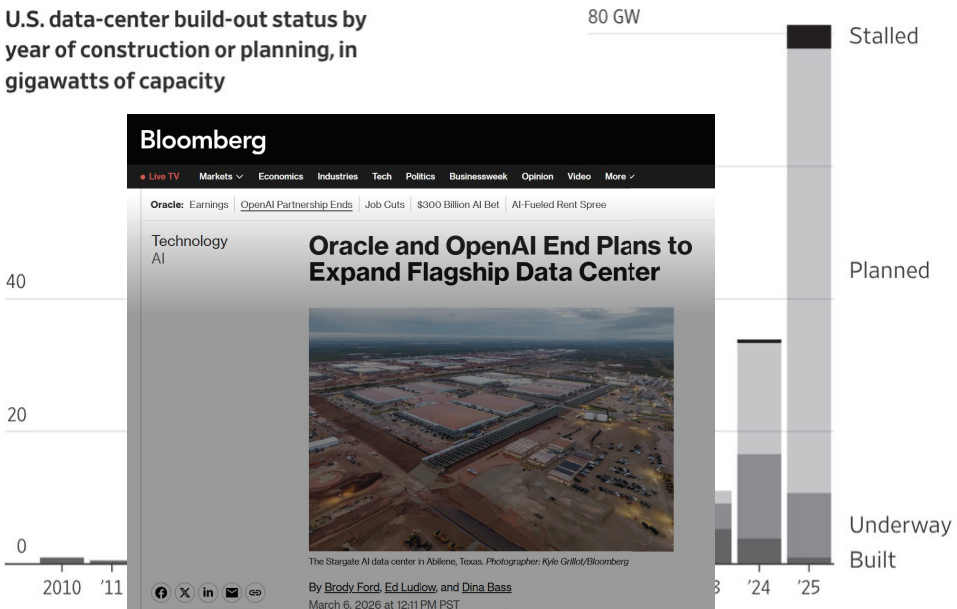
Challenges with estimation: Part 1



Note: 2025 data as of October.
Source: MSCI Real Assets via JPMorgan Chase

https://bsky.app/profile/mims.bsky.social/post/3m5qx4nbxac2z

Challenges with estimation: Part 1



Note: 2025 data as of October.
Source: MSCI Real Assets via JPMorgan Chase

https://bsky.app/profile/mims.bsky.social/post/3m5qx4nbxac2z

UC SANTA BARBARA

Challenges with estimation: Part 2

A large data center before the "AI Boom"

Facebook leased data center (Ashburn, VA)
70+ MW (~50,000 homes)
https://sabeydatacenters.com/blog/hyperscale-data-centers/

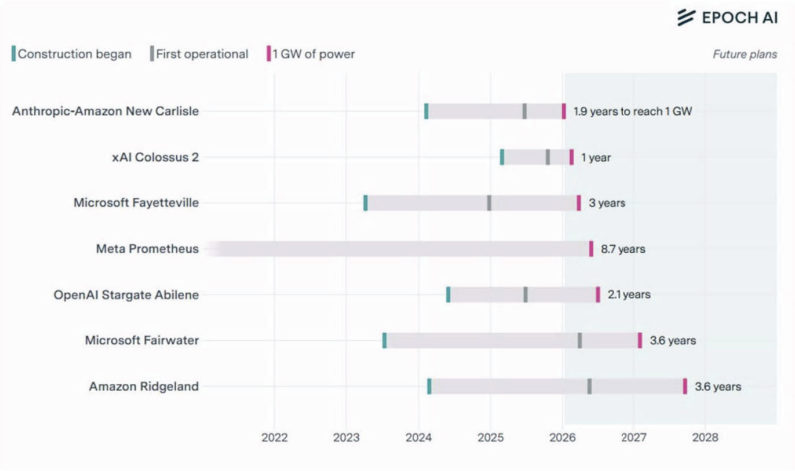
UC SANTA BARBARA

Challenges with estimation: Part 2

A large data center before the "AI Boom"

Facebook leased data center (Ashburn, VA)
70+ MW (~50,000 homes)
https://sabeydatacenters.com/blog/hyperscale-data-centers/

A large data center after the AI Boom (1 GW = 1000 MW)



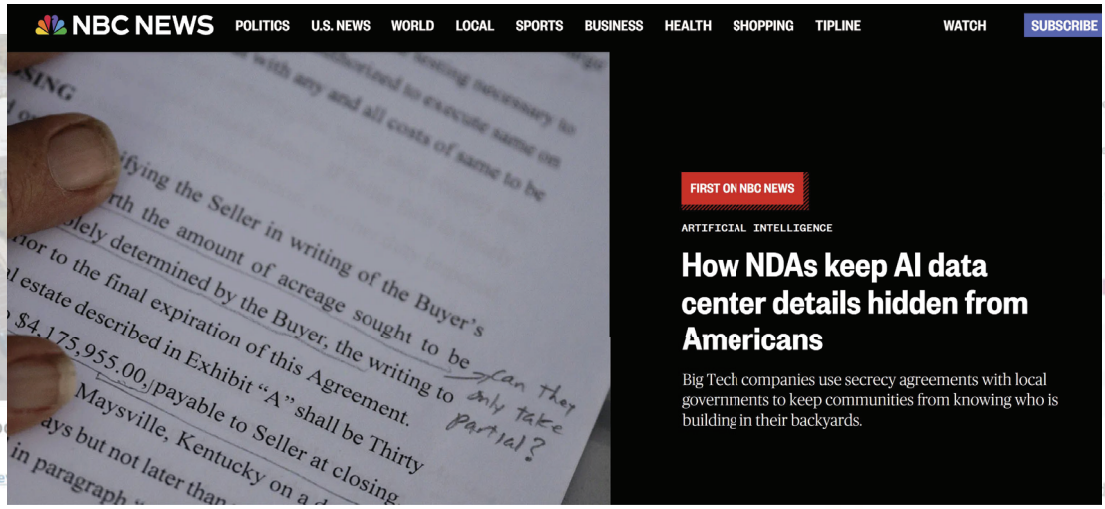
Epoch AI, 'Frontier Data Centers'. Published online at epoch.ai. Retrieved from 'https://epoch.ai/data/data-centers'

UC SANTA BARBARA

Challenges with estimation: Part 3

A large data center before the "AI Boom"

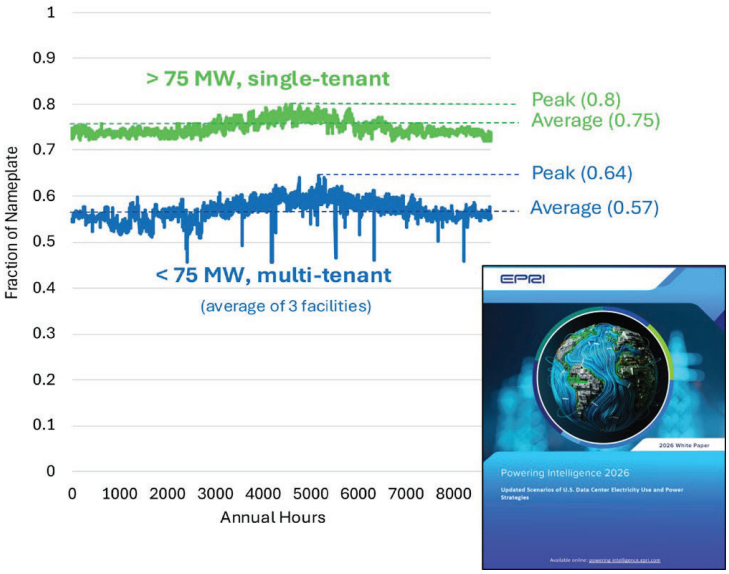
A large data center after the AI Boom (1 GW = 1000 MW)

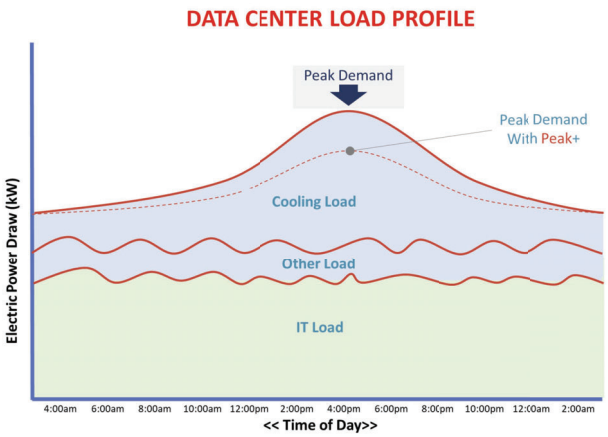


Epoch AI, 'Frontier Data Centers'. Published online at epoch.ai. Retrieved from 'https://epoch.ai/data/data-centers'

UC SANTA BARBARA

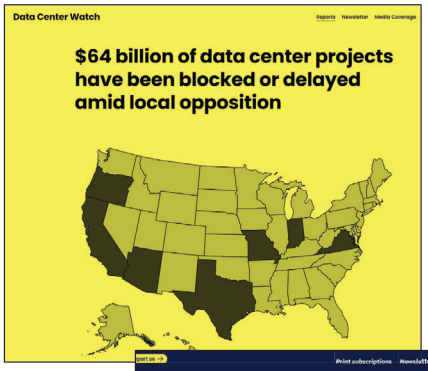
The data challenge: Part 4



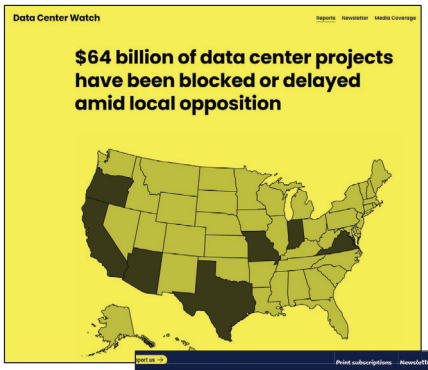


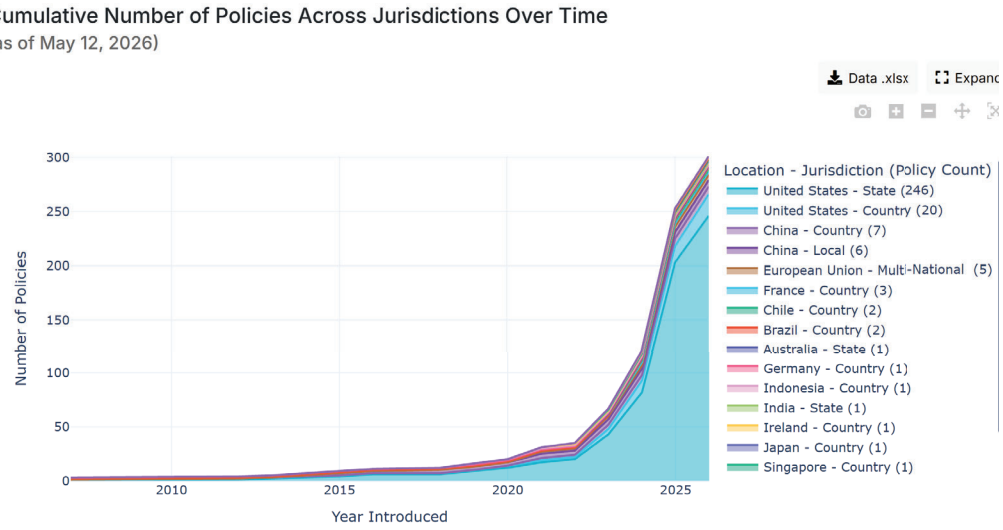
https://peakplus.energy/blog/peak-load-shaving-for-data-centers-with-peak

Challenges with estimation: Part 5

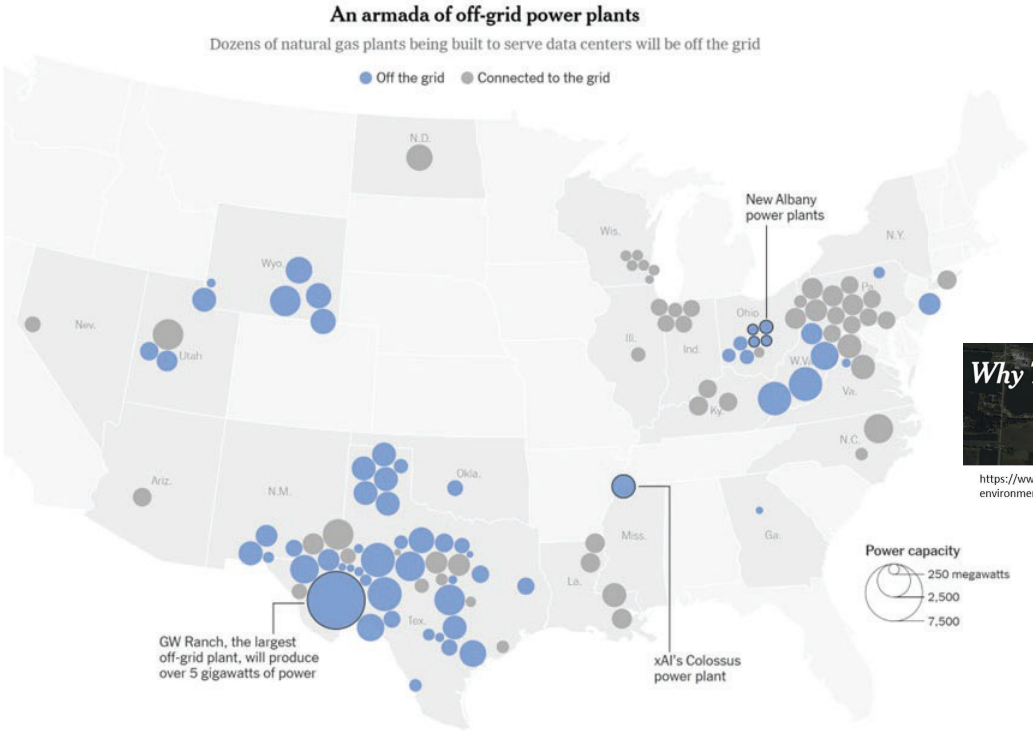


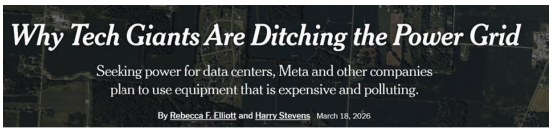
Challenges with estimation: Part 5





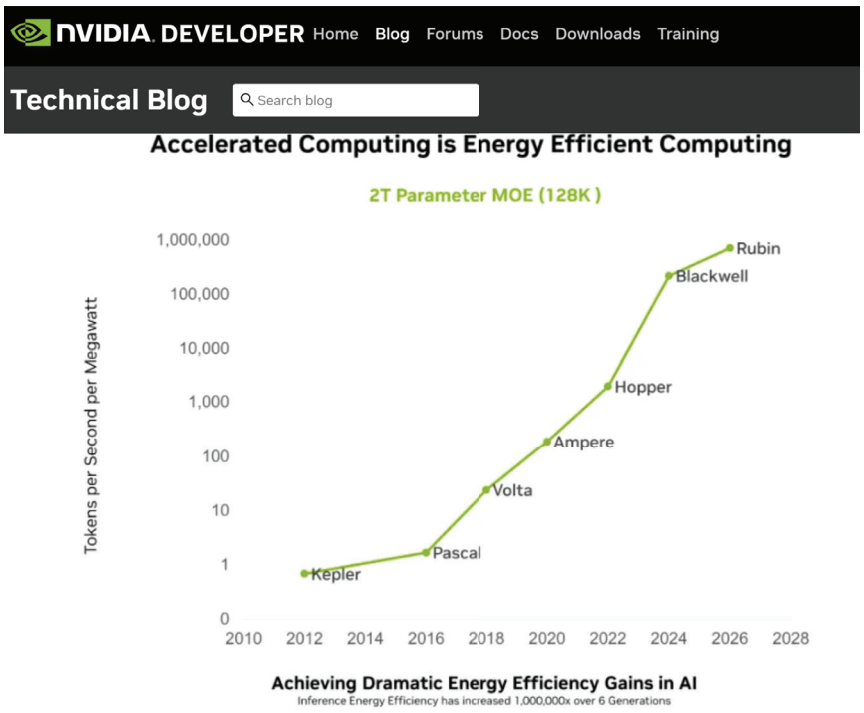
Challenges with estimation: Part 6





https://www.nytimes.com/interactive/2026/03/18/business/energy-environment/data-center-energy-gas-generators.html

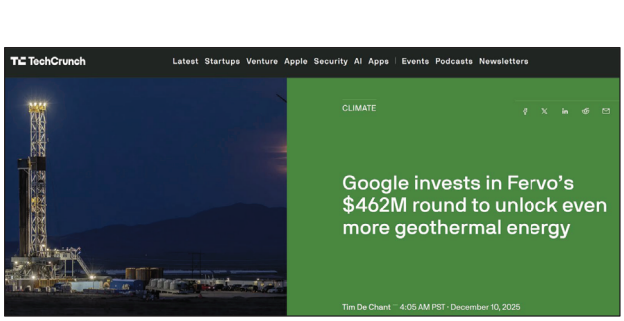
Challenges with estimation: Part 7

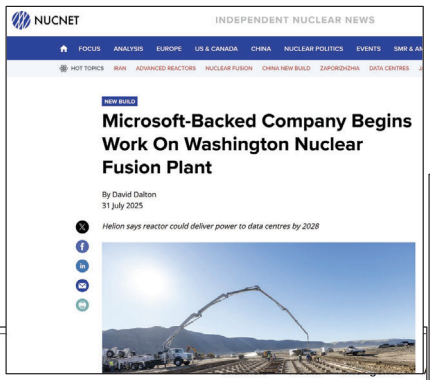


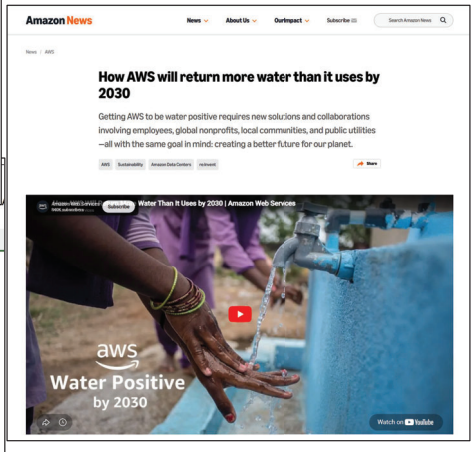
https://developer.nvidia.com/blog/scaling-token-factory-revenue-and-ai-efficiency-by-maximizing-performance-per-watt/

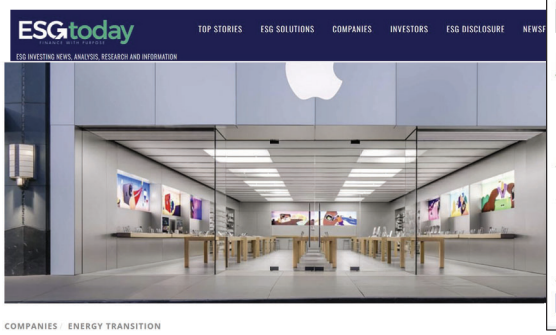
UC SANTA BARBARA

Challenges with estimation: Part 8







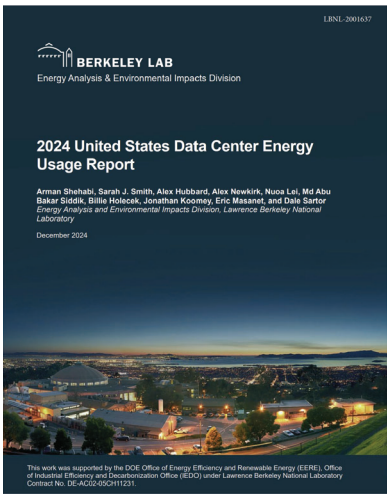


COMPANIES · ENERGY TRANSITION

Apple Invests in 650 MW of New Renewables Projects to Address Carbon Footprint of Product Use

UC SANTA BARBARA

Where is U.S. data center energy use headed?



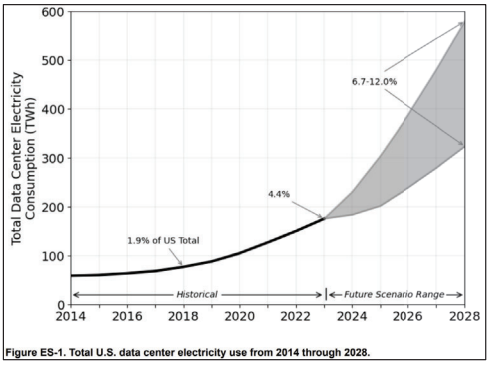


Figure ES-1. Total U.S. data center electricity use from 2014 through 2028.

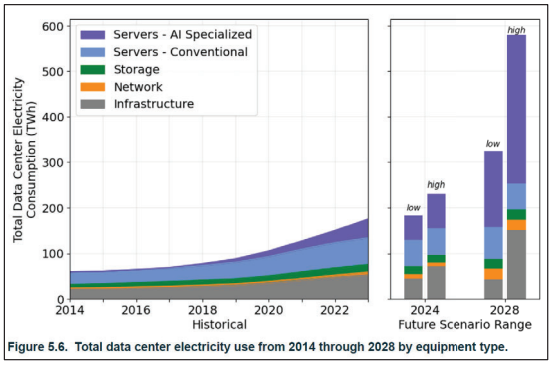


Figure 5.6. Total data center electricity use from 2014 through 2028 by equipment type.

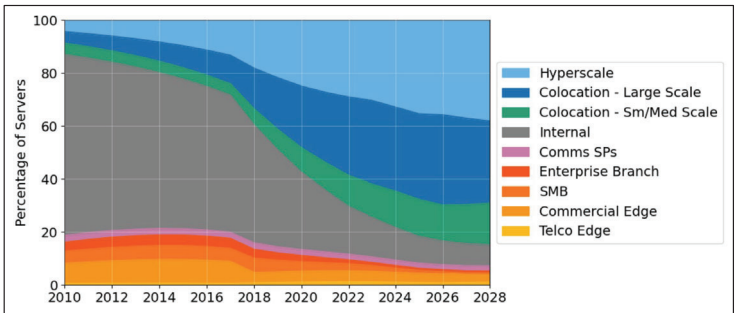
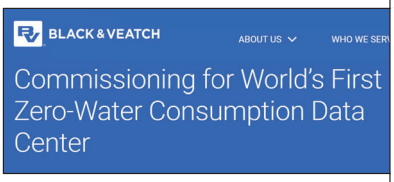


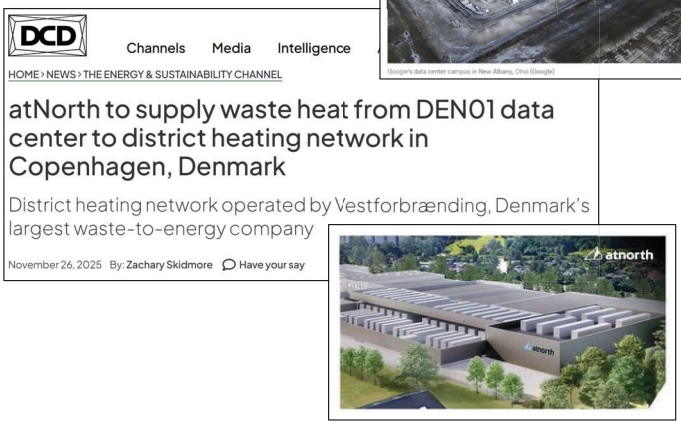
Figure 4.1. Distribution of servers by data center type.

UC SANTA BARBARA

Bending the curve: Key conditions

1. Data center siting → maximize renewables, minimize water stress
2. Stringent efficiency standards (PUE, WUE, and more)
3. Maximize waste heat recovery
4. Utility resilience → onsite storage and demand flexibility
5. Pay attention to peaks!
6. Maximum operator reporting transparency
7. Smaller models for specific problems
8. Measurement and verification of AI application impacts/benefits





UC SANTA BARBARA

Data Center Water Use

Nell Green Nylen, JD, PhD
Senior Research Fellow
ngreennylen@berkeley.edu

June 4, 2026

UC Berkeley Center for Law, Energy & the Environment

ABOUT CLEE

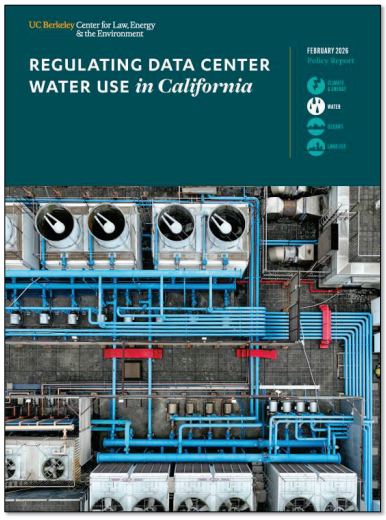
The Center for Law, Energy & the Environment (CLEE) believes solving our most pressing environmental challenges requires actionable research, training, and engagement to accelerate the implementation of solutions.

CLEE tackles climate change and other environmental challenges at the local to global scale through the development and implementation of equitable and effective legal and policy solutions.

https://www.law.berkeley.edu/research/clee/

What I'll cover...

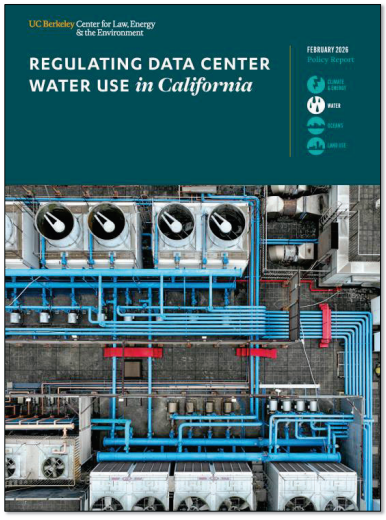
- Why it's important to consider data-center water use
- Ways to reduce data center water use and its impacts
- The policy and regulatory framework for data center water use in California
- Recommendations for addressing key information and policy gaps
- Helpful resources



https://www.law.berkeley.edu/data-center-water-use

What I'll cover...

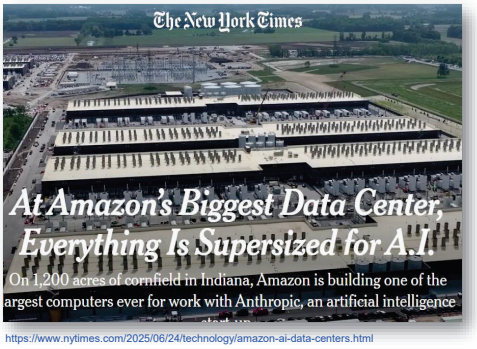
- Why it's important to consider data-center water use
- Ways to reduce data center water use and its impacts
- The policy and regulatory framework for data center water use in California
- Recommendations for addressing key information and policy gaps
- Helpful resources



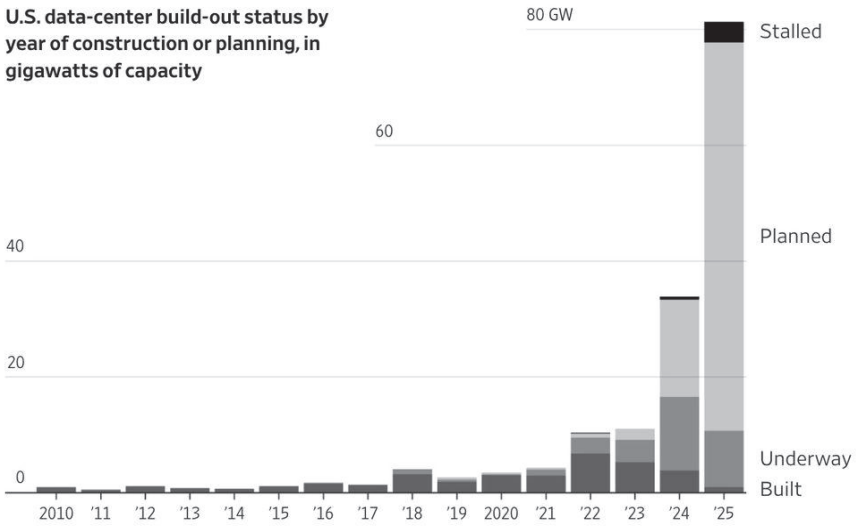
https://www.law.berkeley.edu/data-center-water-use

Rapid expansion of data centers (number + size)

- Generative AI is driving a boom in data centers.



https://www.nytimes.com/2025/06/24/technology/amazon-ai-data-centers.html



Note: 2025 data as of October.
Source: MSCI Real Assets via JPMorgan Chase

https://bsky.app/profile/mims.bsky.social/post/3m5qx4nbxac2z

How do data centers use water?

- **Direct water use**: *Onsite use to cool servers*
- **Indirect water use**: *Offsite + construction-related use / impacts*
- Water use & impacts depend on facility size; cooling technologies; energy source; local water, climate conditions, social, and ecosystem conditions and vulnerabilities; etc.

Often the lion's share of total water use

DIRECT WATER USE

On-site cooling

INDIRECT WATER USE*

Electricity generation

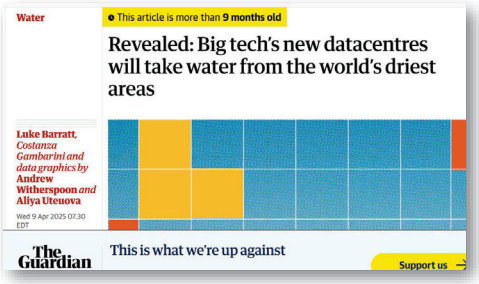
Supply chain

Wastewater treatment

Construction

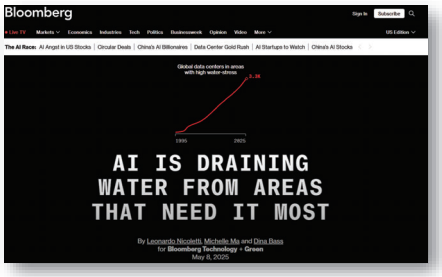
Growing concern over data-center water use

- Data centers use water both directly and indirectly.
- Demand for data centers is expected to rise.
- **Locally, water impacts can be intense.**



https://www.theguardian.com/environment/2025/apr/09/big-tech-datacentres-water

https://www.nytimes.com/2026/01/27/technology/microsoft-water-ai-data-centers.html



https://www.bloomberg.com/graphics/2025-ai-impacts-data-centers-water-data/

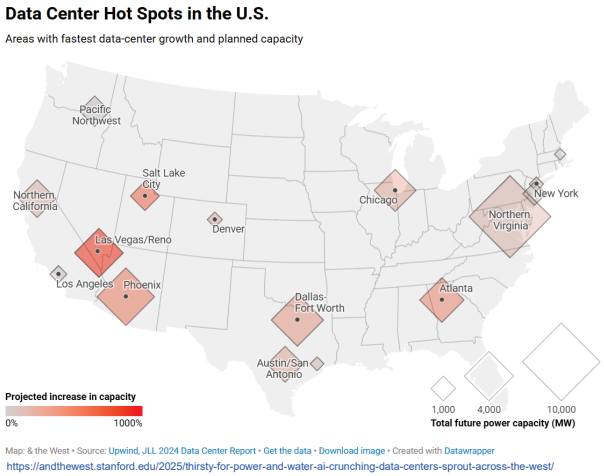
https://www.nytimes.com/2025/07/14/technology/meta-data-center-water.html

https://www.theatlantic.com/technology/archive/2024/03/ai-water-climate-microsoft/677602/

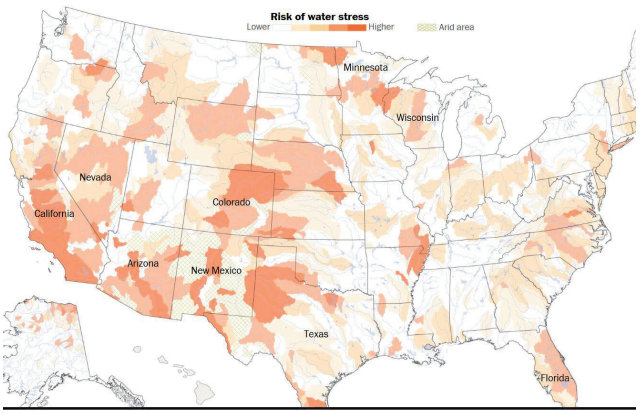
https://www.sfgate.com/california/article/california-data-centers-21331191.php

Where are data centers / where are they being built?

- Already >300 facilities in California.
- Expansion is happening in many water-scarce regions.
- Most new data centers are being construction in rural areas.



https://andthewest.stanford.edu/2025/thirsty-for-power-and-water-ai-crunching-data-centers-sprout-across-the-west/



https://www.washingtonpost.com/climate-environment/2019/08/06/mapping-strain-our-water/

Information gaps and other challenges

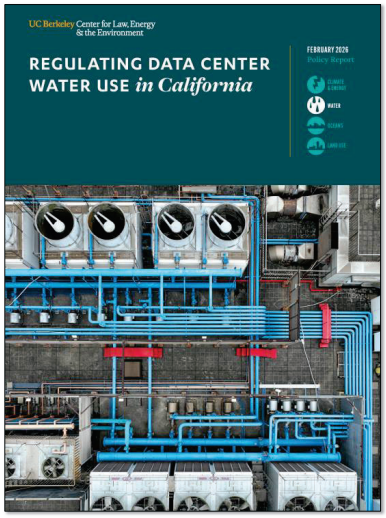
- Estimates suggest a significant water footprint, but there is little information on site-specific data-center water use.
- Limited reporting and lack of transparency hinder understanding of scope, scale, and impacts.
- Local communities bear the impacts and make decisions on development, but they lack guidance.
- Water and energy use are intertwined and may present trade-offs.

https://www.latimes.com/environment/story/2025-10-14/newsom-ai-data-center-water

https://calmatters.digitaldemocracy.org/bills/ca_202520260ab1577

What I'll cover...

- Why it's important to consider data-center water use
- Ways to reduce data center water use and its impacts
- The policy and regulatory framework for data center water use in California
- Recommendations for addressing key information and policy gaps
- Helpful resources



https://www.law.berkeley.edu/data-center-water-use

Ways to reduce DIRECT data-center water use and its impacts

BETTER

- **Strategic siting**
  - Siting new centers in areas that are cooler, have low water stress, and less stressed water sources *(e.g., recycled water)*
- **Thoughtful design**
  - Selecting less water-intensive cooling systems
- **Operational efficiency measures**
- **Offsetting water use and consumption impacts**

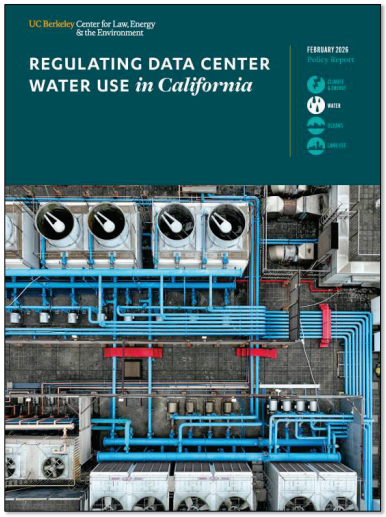
WATER SOURCES
- Water service
- Recycled water service
- Natural water source *(groundwater, surface water)*

COOLING SYSTEM OPTIONS
- free cooling
- air cooling
- liquid cooling
- evaporative cooling

* *There are often significant water vs. energy efficiency trade offs!*

What I'll cover…

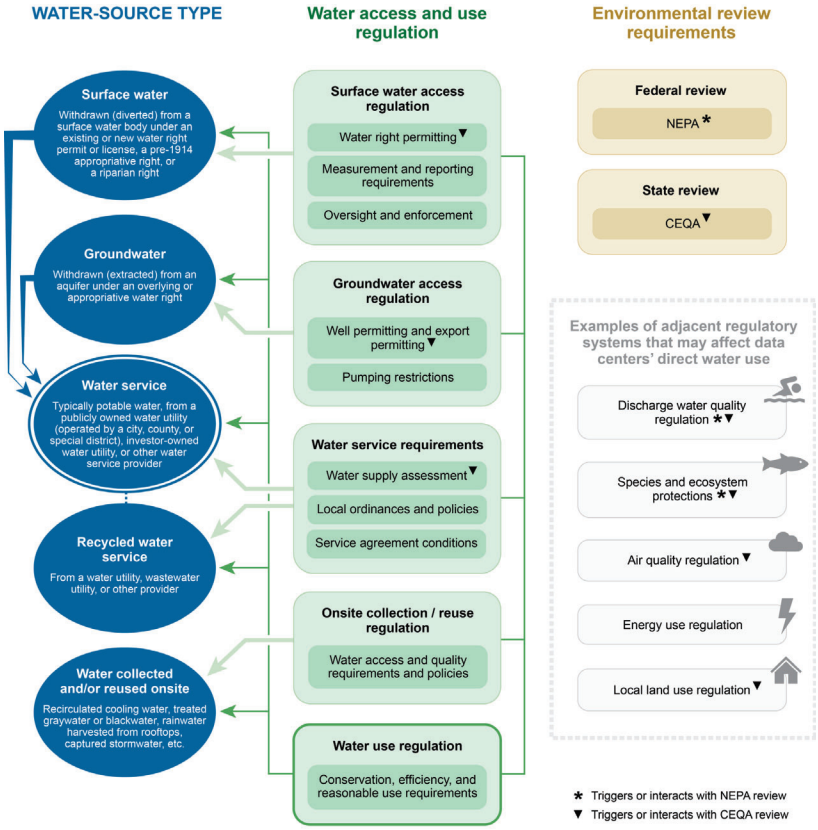
- Why it's important to consider data-center water use
- Ways to reduce data center water use and its impacts
- The policy and regulatory framework for data center water use in California
- Recommendations for addressing key information and policy gaps
- Helpful resources



https://www.law.berkeley.edu/data-center-water-use

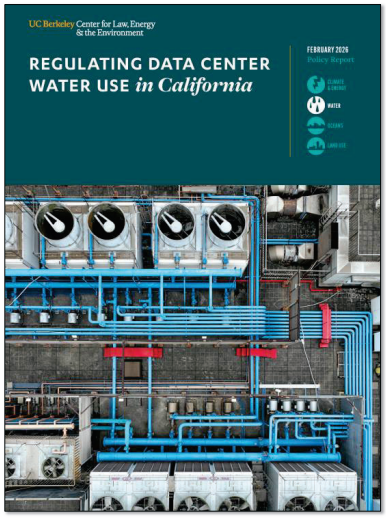
Policy and regulatory framework for direct use

- Patchwork of policies and regulations
  - *Environmental review requirements*
    - *CEQA, NEPA*
  - *Water access and use regulation*
    - *Reporting requirements*
    - *Water access permits / approvals*
    - *Water supply assessments*
    - *Land-use approval decisions (and conditions)*
    - *Efficiency requirements*
- (Mostly) not designed specifically for data centers
- Gaps and inconsistencies



What I'll cover…

- Why it's important to consider data-center water use
- Ways to reduce data center water use and its impacts
- The policy and regulatory framework for data center water use in California
- Recommendations for addressing key information and policy gaps
- Helpful resources



https://www.law.berkeley.edu/data-center-water-use

Recommendations

The state can…

- Improve water-use data collection and transparency.
- Build local capacity to evaluate and address the water impacts of proposed data-center projects.

Local governments and the state can…

- Establish requirements and incentives for water efficiency and recycled water use.

The data center industry can…

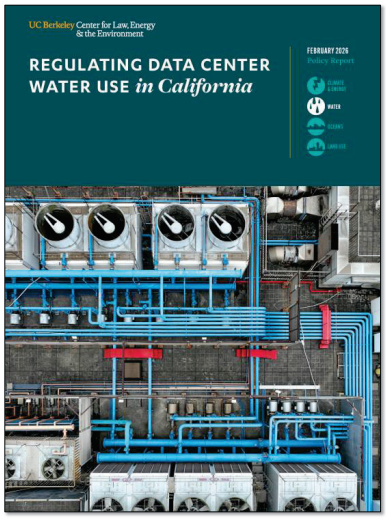
- Explicitly consider water-related impacts in siting and design and make water-energy tradeoffs clear.
- Include site-specific water-use data in corporate reports.

Conclusion

- The scale and speed of data center growth, the magnitude of the industry's estimated water footprint, and the potential for significant local impacts call for a **coordinated effort to track and understand data centers' water use** *before* it creates irreversible impacts.
- State and local governments and the tech industry can champion transparency, strategic siting, and thoughtful design to reduce data centers' water impacts.

What I'll cover…

- Why it's important to consider data-center water use
- Ways to reduce data center water use and its impacts
- The policy and regulatory framework for data center water use in California
- Recommendations for addressing key information and policy gaps
- Helpful resources

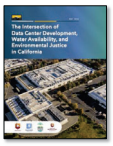


https://www.law.berkeley.edu/data-center-water-use

Helpful Resources

California-focused:

- CLEE (Our report): **Regulating Data Center Water Use in California** (2026), https://www.law.berkeley.edu/data-center-water-use



- Next 10 | Santa Clara University: **The Intersection of Data Center Development, Water Availability, and Environmental Justice In California** (2026), https://www.next10.org/publications/data-centers-water-environmental-justice

Other resources:

- Consumer Reports: **AI Data Centers: Big Tech's Impact on Electric Bills, Water, and More** (March 20, 2026), https://www.consumerreports.org/data-centers/ai-data-centers-impact-on-electric-bills-water-and-more-a1040338678/

Other resources continued…

- Ceres: **Drained by Data: The Cumulative Impact of Data Centers on Regional Water Stress** (2025), https://www.ceres.org/resources/reports/drained-by-data-the-cumulative-impact-of-data-centers-on-regional-water-stress

- UC Riverside, RIT, Caltech: **Small Bottle, Big Pipe: Quantifying and Addressing the Impact of Data Centers on Public Water Systems** (2026), https://www.universityofcalifornia.edu/news/data-center-water-spikes-could-cost-billions

- HARC: **Powering Texas' Digital Economy: Data Centers and the Future of the Grid: Part 2** (2025), https://harcresearch.org/research/powering-texas-digital-economy-data-centers-and-the-future-of-the-grid/

- Climate X Change: **State Policy Toolkits for Data Center Regulation** (2026), https://climate-xchange.org/resources-for-regulating-data-centers/

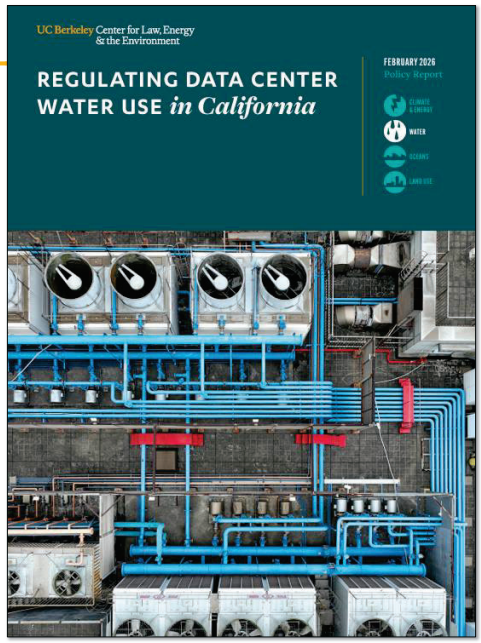
Thank you!

This work was supported by the Internet Society Research Foundation (ISOC), Project "Greening the internet: Transforming useful research into used outcomes," the Agriculture and Food Research Initiative, Project Award No. 2021-69012-35916, from the U.S. Department of Agriculture (USDA) National Institute of Food and Agriculture, and a grant from the U.S. Environmental Protection Agency's (EPA) Office of Research and Development under Assistance Agreement No. RD-84046101.

Authors:

Marie Grimm
Nell Green Nylen, ngreennylen@berkeley.edu
Michael Kiparsky

UC Berkeley
Center for Law, Energy
& the Environment



Grimm, M., N. Green Nylen, and M. Kiparsky, ***Regulating Data Center Water Use in California*** (2026), https://www.law.berkeley.edu/data-center-water-use