San Gabriel Valley Council of Governments

AGENDA AND NOTICE OF THE MEETING OF THE SGVCOG PUBLIC WORKS TECHNICAL ADVISORY COMMITTEE

Monday, April 16, 2018 – 12:00 PM

2017/2018 OFFICERS

Chair: Rene Guerrero

Vice Chair: David Liu

Immediate Past Chair: Phil Doudar

Voting Members:

Arcadia
Azusa
Claremont
Diamond Bar
El Monte
Irwindale
Monrovia
Pomona
San Dimas
South El Monte
Temple City
West Covina
LA County DPW

Thank you for participating in today's meeting. The Public Works Technical Advisory Committee encourages public participation and invites you to comment on agenda items.

MEETINGS: ***Regular Meetings of the Public Works Technical Advisory Committee are held on the third Monday of each month at 12 PM at the Upper San Gabriel Valley Municipal Water District-602 E. Huntington Dr., Suite B, Monrovia, CA 91016.*** The Public Works Technical Advisory Committee agenda packet is available at the San Gabriel Valley Council of Government's (SGVCOG) Office, 1000 South Fremont Avenue, Suite 10210, Alhambra, CA, and on the website, www.sgvcog.org. Copies are available via email upon request (sgv@sgvcog.org). Documents distributed to a majority of the Committee after the posting will be available for review in the SGVCOG office and on the SGVCOG website. Your attendance at this public meeting may result in the recording of your voice.

CITIZEN PARTICIPATION: Your participation is welcomed and invited at all Public Works Technical Advisory Committee meetings. Time is reserved at each meeting for those who wish to address the Board. SGVCOG requests that persons addressing the Committee refrain from making personal, slanderous, profane, or disruptive remarks.

TO ADDRESS THE PUBLIC WORKS TECHNICAL ADVISORY COMMITTEE: At a regular meeting, the public may comment on any matter within the jurisdiction of the Committee during the public comment period and may also comment on any agenda item at the time it is discussed. At a special meeting, the public may only comment on items that are on the agenda. Members of the public wishing to speak are asked to complete a comment card or simply rise to be recognized when the Chair asks for public comments to speak. We ask that members of the public state their name for the record and keep their remarks brief. If several persons wish to address the Committee on a single item, the Chair may impose a time limit on individual remarks at the beginning of discussion. **The Public Works Technical Advisory Committee may not discuss or vote on items not on the agenda.**

AGENDA ITEMS: The Agenda contains the regular order of business of the Public Works Technical Advisory Committee. Items on the Agenda have generally been reviewed and investigated by the staff in advance of the meeting so that the Committee can be fully informed about a matter before making its decision.

CONSENT CALENDAR: Items listed on the Consent Calendar are considered to be routine and will be acted upon by one motion. There will be no separate discussion on these items unless a Committee member or citizen so requests. In this event, the item will be removed from the Consent Calendar and considered after the Consent Calendar. If you would like an item on the Consent Calendar discussed, simply tell Staff or a member of the Public Works Technical Advisory Committee.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the SGVCOG office at (626) 457-1800. Notification 48 hours prior to the meeting will enable the SGVCOG to make reasonable arrangement to ensure accessibility to this meeting.

PRELIMINARY BUSINESS

1. Call to Order

2. Pledge of Allegiance

3. Roll Call

4. Public Comment *(If necessary, the Chair may place reasonable time limits on all public comments)*

CONSENT CALENDAR (*It is anticipated that the Committee may take action on the following matters)*

5. Review Public Works TAC Meeting Minutes: 3/19/2018 -- Page 1
Recommended Action: Review and approve.

PRESENTATIONS

6. Modernization of the Changing Electric Grid; Presentation by: Joshua Torres, Government Affairs Representative, SCE -- Page 7
Recommended Action: For information and discussion only.

ACTION ITEMS (*It is anticipated that the Committee may take action on the following matters)*

DISCUSSION ITEMS

UPDATE ITEMS

7. CicLAvia: Heart of the Foothills Event Update and Overview: Presentation by: Romel Pascual, Executive Director, CicLAvia
Recommended Action: For information only.

8. ACE/COG Integration -- Page 33
Recommended Action: For information only.

9. Update on Measure M Subregional Fund Programming -- Page 35
Recommended Action: For information only.

INFORMATION ITEMS
EXECUTIVE DIRECTOR'S COMMENTS

ANNOUNCEMENTS

- The next Public Works TAC Meeting will be on Monday, May 21, 2018.

ADJOURN

SGVCOG Public Works TAC Meeting Minutes
Date: March 19, 2018
Time: 12:00 P.M.
Location: Upper San Gabriel Valley Municipal Water District
602 E. Huntington Dr., Suite B, Monrovia, CA 91016

PRELIMINARY BUSINESS

1. Call to Order. The meeting was called to order at 12:07 p.m.

2. Pledge of Allegiance. R. Guerrero led the TAC in the Pledge of Allegiance.

3. Roll Call

Public Works TAC Members Present
C. Curiel; Azusa
F. Lopez; Claremont
E. Jeng, C. Dillon; El Monte
D. Co; Irwindale
A. Tachiki; Monrovia
R. Guerrero; Pomona
K. Patel; San Dimas
M. Forbes; Temple City
M. Heredia; West Covina
J. Yang, P. Doudar, J. Lu; LACDPW

Public Works TAC Members Absent
Arcadia
Diamond Bar
South El Monte

Guests
S. Ahmad, SA Associates
F. Alamolhoda, J. Andrews; LAE Associates
A. Tolar, B. Schmith; LA Metro
J. Martinez; NCE
D. Cadena; WKE, Inc.
S. Novotny; Caltrans
S. Forster; Infrastructure Engineers

SGVCOG Staff
E. Wolf
P. Duyshart

4. Public Comment.

There was no public comment.

CONSENT CALENDAR

5. Review Public Works TAC Meeting Minutes: 02/26/2018
There was a motion to approve the minutes (M/S: P. Doudar/K. Patel).
[Motion Passed]

Ayes	Azusa, Claremont, El Monte, Irwindale, Monrovia, Pomona, San Dimas, Temple City, West Covina, LACDPW
Noes	
Abstain	
Absent	Arcadia, Diamond Bar, South El Monte

PRESENTATIONS

6. I-10 Express Lanes Project Update

R. Wolfe, the Executive Director of the SBCTA, opened this presentation by providing a brief introduction to, and background of, the SBCTA in general, and its I-10 Express Lanes Project. He then introduced P. Beauchamp, the SBCTA's Director of Project Delivery, who delivered the majority of the presentation.

Ms. Beauchamp explained how San Bernardino County has seen its population triple since about 1970. As a result, there is a high volume of congestion and freeway traffic throughout a plethora of San Bernardino County's traffic corridors; this especially applies to the I-10 Freeway, which is a highly frequented freeway by residents of San Bernardino County and neighboring counties. The SBCTA has been trying to find solutions which address the very high amount of congestion and slow-downs on the I-10 Freeway.

P. Beauchamp continued by saying how the SBCTA, after studies, reviews, and public outreach, reached the conclusion that an express lanes project on I-10 would bring traffic benefits to the corridor and to the whole San Bernardino County region. Thus, the SBCTA is commissioning the construction of a 33-mile Express Lanes project which will stretch along the I-10 from the LA County line at the west to the eastern edge of the City of Redlands at the east. Additionally, she mentioned how the first 10-mile segment, which will go from the LA County line to the I-15 interchange and connector, will be relatively easy to construct because there are no major rail or stream crossings along that stretch of the freeway.

One primary challenge for this overall project will be figuring out the transition of the Carpool Lane to Express Lanes at and around the LA County line, from Indian Hill Blvd. to Monte Vista Ave. The SBCTA and its partners must figure out how to make this transition as smooth and seamless as possible.

Also, there will be dynamic and tiered pricing throughout the Express Lanes system. Drivers will have a transponder which is switchable. There will be a discount rate for clean vehicles, and a low-income program, too.

As of now, the SBCTA has hired a project and construction firm to assist through this entire process and to provide design/build and procurement contracts.

Questions/Discussion: The following issues were discussed:

- E. Wolf asked if motorcycle riders will get to ride in the Express Lanes for free, as is the case with other Express Lanes in different counties, such as LA County.
- A TAC member asked about interchangeability between current transponders and the ones that will be used in SB County.
- Someone asked about electric vehicles: R. Wolfe said there are requirements to this that sunset in a couple of years. Their board is also considering a policy right now for clean air vehicles. However, it should be noted that rebates for clean air vehicles will go away in 5 years.
- A second TAC member asked about construction timeline. The contract will be awarded in June 2018. Construction will begin in in Summer 2019, and the project will be open for use in February 2023.
- A TAC member from a County-border city asked about the transition in between the one HOV lane to two, at the County border. There will be over a mile of transition, according to R. Wolfe.

- Another TAC member had a question regarding the Gold Line extension to Ontario, and if this project will have any relation at all to that extension. R. Wolfe replied that this express lanes project has nothing to do with the Gold Line.
- A guest of the TAC asked about signage for pricing, and pricing for off-peak and on-peak times. She also asked about transponders.
- A question was asked about onramp and offramp re-configurations, and how they'll connect to City streets.
- A TAC member from a second County-bordering city asked if the contractors will work with the bordering cities (like if they have to pull permits) and have fair communication.
- Additionally, there was a question about design build contractors for this. There are currently two teams of contractors working on the project and which are under consideration.
- Another guest of the TAC asked if there will be a separate procurement for a construction manager? P. Beauchamp stated that they've already hired a project manager.

7. Rio Hondo Load Reduction Strategy Agreement and RFP

E. Wolf, a Senior Management Analyst with the SGVCOG, provided the presentation on this item. He first alerted TAC members to the fact that this Rio Hondo project will be the first project which is assigned to the new SGVCOG Capital Project and Construction Committee, under the new COG/ACE integrated program and structure. This shows that the new ACE office will not only manage transportation and grade separation projects; it will take on a wide variety of capital construction and infrastructure projects that benefit the greater San Gabriel Valley subregion.

A Load Reduction Strategy is a plan to reduce the amount of bacteria and waste from water ways and channels, as well as storm water ways and infrastructure. In order to restrict the amount of bacteria entering waterways (MS4 Permit), the cities on the Rio Hondo River and its tributaries have been working collaboratively on a solution, and want to enter into an MOA with the SGVCOG.

Additionally, E. Wolf mentioned that MS4 guidelines allow for investment of $1.5 to $2 million at each outfall site along the Rio Hondo and the Eaton, Rubio, and Alhambra washes. He then described the type of construction and infrastructure that would be required to offload bacteria at various points of these washes and channels. Moreover, Mr. Wolf elaborated on the MOA and RFP timelines, as well as the scope of the SGVCOG's role and involvement in the project. The SGVCOG is being expected to act as the lead agency to hire a consultant for project design and preparation of the CEQA documentation. The COG will also financially administer the contract, too. The ACE division of the SGVCOG will take on most of these responsibilities.

Questions/Discussion: The following issues were discussed:

- There was a question about the estimated number for the project cost, and how cities are funding this. Currently, cities (LA County, Alhambra, Monterey Park, Pasadena, Rosemead, San Gabriel, San Marino, South Pasadena, and Temple City) are chipping in to pay for design. The project is expected to cost $5 million total. However, there are no funding sources yet for the actual construction.
- There was another question regarding which agency will maintain this project once it's been constructed. E. Wolf noted that it is in the Flood Control District's right-of-way, but it still has not been finalized who will maintain the new infrastructure.

- A TAC member asked what are the other cities which are part of the Upper LA River district doing. E. Wolf clarified that while there are 19 cities and agencies in this watershed, only nine cities are involved in this Rio Hondo Load Reduction project.
- Another TAC member asked why aren't the EWMP groups working on this project? What is the COG's role, if the EWMP can work on this project collectively?

ACTION ITEMS

UPDATE ITEMS

8. ACE/COG Integration

P. Duyshart updated the TAC on this item. He provided a chart which showed the timeline of the various integration activities, projects, and aspects for the next year. He also reported that a compensation and classification study for the integrated agency was about to commence, and that the SGVCOG was considering office location and lease options. Duyshart also reported that the SGVCOG Governing Board named Marisa Creter as the new permanent Executive Director. Ms. Creter had served as the Interim Executive Director since October 2017, after previously being the COG's Assistant Executive Director.

9. Update on Measure M Subregional Administrative Funds

P. Duyshart provided this update. He reminded Committee members that this item was first presented at the November Transportation Committee Meeting. Mr. Duyshart then summarized the three possible funding options to fund the COG's administrative transportation work. Under Option A, the COG would utilize the available $37,600 in funding to offset the cost and work of existing staff. Option B would call for utilizing the available funding to hire a consultant to develop a five-year programming plan and conduct outreach to member agencies and other stakeholders. Option C would call for the approval of a special assessment on COG cities which would be equal to 0.5% of cities' Measure M local return funds for the initial 5-year period.

Duyshart concluded the update by recapping the decisions and actions of the other COG TACs pertaining to this budget issue. After considering the professional feedback and advice of the members of the various TACs, the COG has decided to postpone Option C and the possible hiring of a Transportation Planner, due to a worry that there would be too much confusion if Option C was adopted while the integration between the COG and ACE was ongoing, since COG staff promised COG member-cities that there would not be any extra costs associated with integrating the two departments. In January, the Transportation Committee supported this course of action. P. Duyshart did note though that COG staff may choose to pursue Option C again in Late 2018 or Early 2019 after Measure M subregional funds are allocated and programmed and the COG concludes that it needs to hire a Transportation Planner to program and coordinate transportation projects and funding in the SGV subregion.

10. Update on Measure M Subregional Fund Programming

P. Duyshart provided an update to the TAC on this matter. He reminded Committee members that Metro's Measure M guidelines require each subregional entity, including the COG, to submit an MSP 5-Year Plan to the Metro Board of Directors for adoption. He then went over the funding that would be available for each subregional sub-program, as adopted by the Governing Board. Based on the funding allocation for each sub-program, SGVCOG staff will assign funding for the highest priority projects, mainly for active transportation projects, first/last mile projects, and highway efficiency projects. COG staff will identify the most important and highest-priority projects by consulting the COG's adopted Mobility Matrix. Mr. Duyshart alerted the Committee that COG staff will likely present a draft list of selected projects for Measure M funding at the Public Works

TAC's April meeting, and that the Planners' TAC will also hear this presentation in April. After COG staff listens to the valuable and technical input and feedback on the MSP 5-Year Plan programming list from the two TACs, COG staff will bring a revised draft list to the Transportation Committee, likely at that committee's May meeting. The SGVCOG Governing Board will need to formally approve the final draft of the proposed 5-Year programming project list, and the Governing Board will likely take up this item at its June or July meeting. P. Duyshart also reminded TAC members that each step in the project selection process, including presentations at TAC and Committee meetings, provides opportunities for members of the public to participate in this process and provide local perspectives.

11. CicLAvia Heart of the Foothills Planning Update

R. Guerrero, the Chair of the Public Works TAC, gave an update on how the planning process for the CicLAvia event has been progressing. He discussed how each participating City – San Dimas, La Verne, Pomona, and Claremont – will have a "hub" where there will be booths, games, activities, and food options, and that at least a couple of the hubs will have a pro-environment and "green" theme to them, as this event coincides with Earth Day, on Sunday, April 22. This exciting and first-of-its-kind-event (for the East SGV) will run from approximately 9 a.m. to 4 p.m. Mr. Guerrero also elaborated on the public safety planning that the City of Pomona has been developing, and gave more information about what the Pomona "hub" will consist of.

INFORMATION ITEMS

DISCUSSION ITEMS

EXECUTIVE DIRECTOR'S COMMENTS

ANNOUNCEMENTS

P. Duyshart announced that the City of Lakewood is inviting public works directors, city engineers, and storm water managers from cities and agencies in LA County to attend a meeting regarding the Safe, Clean Water Program for LA County. The meeting will be held on Thursday, April 5, 2018, from 10:00 am to 12 Noon, at the Lakewood Civic Center. The League of California Cities is also involved in the planning of this meeting, too.

J. Martinez of NCE announced that there is an upcoming field trip to the Manhattan Beach State Park on Thursday, April 18. She also mentioned that there will be an LA River Cleanup event for NCE's Young Professionals Group, and that there will be an upcoming event to highlight complete streets and technological innovations.

R. Guerrero announced that the next Public Works TAC Meeting will be on April 16, 2018.

ADJOURN

The meeting adjourned at 12:54 p.m.

REPORT

DATE: April 16, 2018

TO: SGVCOG Public Works TAC

FROM: Marisa Creter, Executive Director

RE: ELECTRIFICATION AND THE CHANGING ELECTIC GRID

RECOMMENDED ACTION

For information only.

BACKGROUND

The State's greenhouse gas (GHG) goals call for a 40 percent reduction in GHG emissions from 1990 levels by 2030 and an 80 percent reduction by 2050. Air quality goals include a 90 percent reduction in emissions of nitrogen oxides from 2010 levels in some of the State's most polluted areas by 2032. Meeting these clean energy and clean air goals requires fundamental changes to the electric grid over the next few years.

In support of the State's goals, Southern California Edison (SCE) has introduced the Electrification Pathway to help achieve California's climate goals. The Clean Power and Electrification Pathway calls for a modernized electric grid with more carbon-free energy to reduce GHG emissions.

CHANGING ELECTRIC GRID

In order to meet California's climate goals, the current energy grid must be modernized for the expanded integration of renewable energy resources. There is also a need to develop 30 gigawatts (GW) of additional renewable capacity over the next decade to allow for the integration of renewable energy. Once the capacity is built out, it is anticipated that SCE can provide up to 80 percent carbon-free energy by 2030 from a combination of renewable resources including wind, solar and large hydroelectric generators.

The traditional grid system was not designed to meet many emerging trends, such as greater adoption of renewable and carbon-free energy. As the energy grid begins to modernization, local communities will need to consider policies that will allow them to adapt to a modernized grid. polices such as:

- Land-use to allow for development of net zero buildings,
- Incentives to develop local generation and storage facilities, and
- Developing infrastructure to serve electric vehicle (EV) charging stations.

Joshua Torres, a Government Affairs Representative with Southern California Edison, will provide an overview on the modernization of the grid.

Prepared by: _____
Christian Cruz
Management Analyst

Approved by: _____
Marisa Creter
Executive Director

ATTACHMENTS

Attachment A – SCE Electrification Pathway Handout -- Page 9

Attachment B -- SCE Presentation Slides -- Page 21

SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

THE CLEAN POWER AND ELECTRIFICATION PATHWAY

Realizing California's Environmental Goals

November 2017

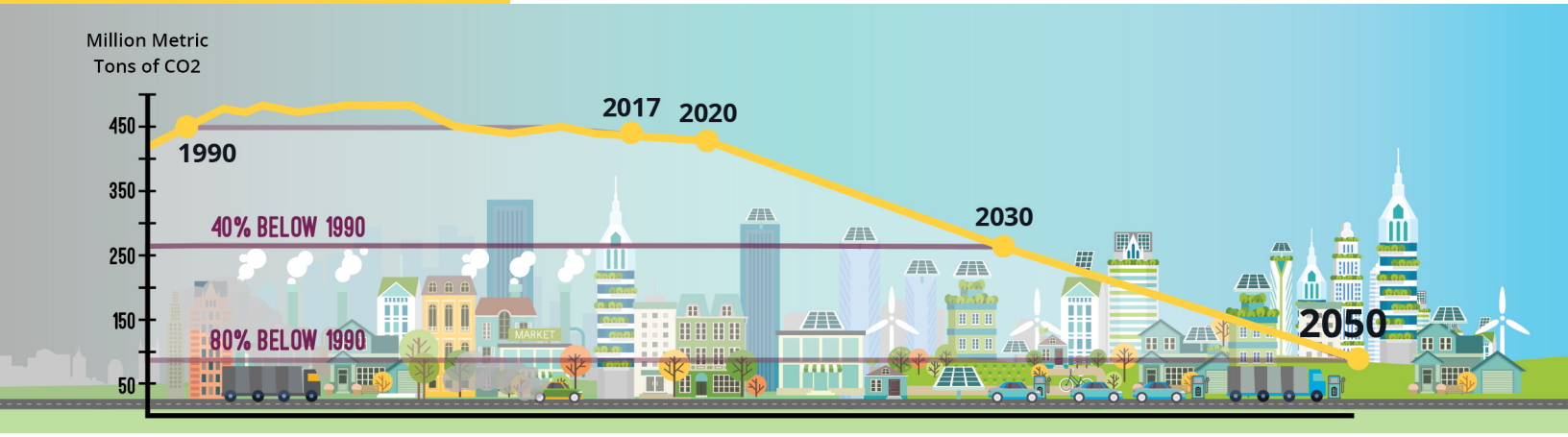


Figure 1: Meeting California's GHG Reduction Goals *(Source: California Air Resources Board [CARB])*

This paper presents Southern California Edison's integrated blueprint for California to reduce greenhouse gas emissions and air pollutants. Realizing the blueprint will reduce the threat of climate change and improve public health related to air quality. It is a systematic approach and each measure is integrated with — and depends upon — the success of the others. To be successful, California must approach implementation as an integrated package, applying resources across the board where most effective.

EXECUTIVE SUMMARY

Climate change and air pollution pose serious threats. Climate change effects, such as sea level rise and longer, more intense heat waves, are now occurring. In California, while significant progress has been made, too many communities continue to experience asthma and other air-quality-related health issues.

California continues its leadership in addressing climate change and air pollution. The state's greenhouse gas (GHG) goals call for a 40 percent reduction in GHG emissions from 1990 levels by 2030 and an 80 percent reduction by 2050 (Figure 1). Air quality goals include a 90 percent reduction in emissions of nitrogen oxides from 2010 levels in some of the state's most polluted areas by 2032. Meeting these ambitious clean energy and clean air goals requires fundamental changes over the next 12 years and beyond.

The electric sector is at the forefront of the fight against climate change in California and today accounts for only 19 percent of the state's GHG emissions. The transportation sector (including fuel refining) and fossil fuels used in space and water heating now produce almost three times as many GHG emissions as the electric sector and more than 80 percent of the air pollution in California.

The Clean Power and Electrification Pathway is an integrated approach to reduce GHG emissions and air pollution by taking action in three California economic sectors: electricity, transportation and buildings. It builds on existing state policies and uses a combination of measures to produce the most cost-effective and feasible path forward among the options studied.

The Pathway will help California achieve its climate goals and significantly reduce today's health-harming air pollution in local communities. It also has strong potential to create highly-skilled, middle-income jobs.

By 2030, it calls for:

- an electric grid supplied by 80 percent carbon-free energy;
- more than 7 million electric vehicles on California roads; and
- using electricity to power nearly one-third of space and water heaters, in increasingly energy-efficient buildings.

(Continued)

(Continued - Executive Summary)

These electrified technologies will use zero-emission resources like solar and wind to provide most of their power, and can in turn support the electric grid by balancing electricity demand with supply.

The private and public sectors must work together to support customer adoption, while ensuring electricity remains reliable and affordable, and that end-use technologies are increasingly energy efficient. Public policy can enable the Clean Power and Electrification Pathway through comprehensive integrated resource planning that includes consideration of end uses of fossil fuels, through investing cap-and-trade revenues thoughtfully, and through supporting electrification in transportation, homes and businesses.

Southern California Edison is proud to be a long-standing partner with the state, customers and our communities on important climate change and air quality efforts. We look forward to continuing this broad-based partnership to pursue practical, cost-effective approaches to achieving a bold, clean energy future.

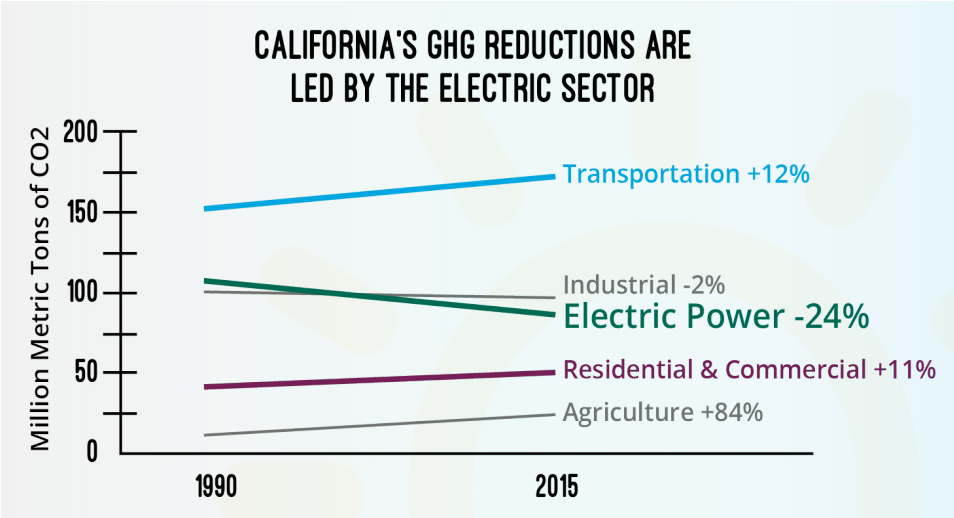


Figure 2: Change in California GHG Emissions *(Source: CARB)*

Successive California policies supporting GHG emissions reductions[1]

1. **SB 1078 (2002), SB 107 (2006), and SB X1-2 (2011)** established a Renewables Portfolio Standard (RPS), 20% by 2010 and then 33% by 2020.
2. **Executive Order S-3-05 (2005)** established a target of reducing GHG emissions 80% below 1990 levels by 2050.
3. **AB 32 (2006)** codified a GHG emissions target of 1990 levels by 2020 and created an economy-wide cap-and-trade program.
4. **SB 350 (2015)** established an RPS of 50% by 2030 and added new requirements for doubling energy efficiency and for wide scale transportation electrification deployment.
5. **SB 32 (2016)** codified a GHG target of reducing emissions 40% below 1990 levels by 2030.
6. **AB 398 (2017)** extended cap-and-trade program to 2030 and defined new offset levels.
7. **CARB Proposed Scoping Plan (2017)** identifies policies and tools to achieve the 2030 GHG target.

Additional major policy measures include the Low Carbon Fuel Standard, the Zero Emission Vehicle Program and Sustainable Community Planning.

A systematic approach that integrates these programs and market activities provides the best chance of achieving shared goals at the lowest cost to customers and the economy.

INTRODUCTION

California is committed to reducing its greenhouse gas (GHG) emissions, improving local air quality and supporting continued economic growth. The state set goals to reduce GHG emissions by 40 percent from 1990 levels by 2030 and 80 percent from the same baseline by 2050 (Figure 1).[2] State and local air quality plans call for substantial improvements, such as reducing smog-causing nitrogen oxides (NOx) 90 percent below 2010 levels by 2032 in the most polluted areas of the state.[3] Meeting environmental goals of this magnitude will require fundamental changes to infrastructure and transportation and, at the same time, can help the California economy by creating jobs. These policy goals cannot be achieved by the electric sector alone.[4]

The Urgency of Meeting Climate Change and Air Quality Goals

Meeting California's pressing 2030 climate and air quality goals requires timely, proactive decision-making by policymakers and leaders throughout the state. Stakeholders must quickly align on the near-term programs and market transformation activities required to meet this ambitious schedule. A systematic approach that integrates these programs and market activities provides the best chance of achieving shared goals at the lowest cost to customers and the economy.

The electric sector has provided the majority of emissions reductions in California (Figure 2) through energy efficiency, the phasing out of coal, and integration of new renewable resources. We are ahead of pace to reach a 50 percent renewables portfolio standard (RPS) by 2030.[5]

For California to meet its 2030 GHG target, significant emission reductions will be required from consumers of liquid and gas fuels — primarily in the transportation and building sectors. The transportation sector contributes nearly 40 percent of California's GHG emissions (approximately 45 percent when oil refining is included) and 80 percent of California's smog-forming NOx emissions.[6] The residential, commercial, and industrial sectors combined contribute approximately 30 percent of the state's GHG emissions (Figure 3). These emissions, as opposed to the emissions from the electric sector, have risen by more than 10 percent since 1990.[7]

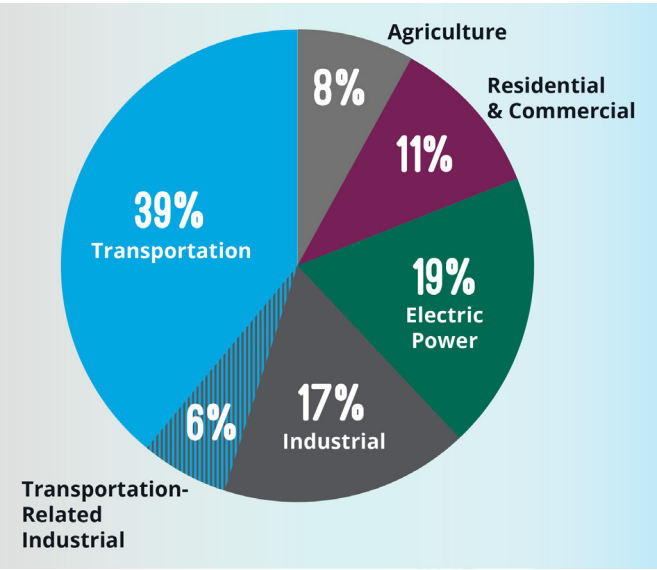


Figure 3: California GHG Emissions by Sector in 2015 *(Source: CARB)*

CLEAN POWER AND ELECTRIFICATION PATHWAY

California has taken concrete steps to move toward a clean energy future. Market-based policies such as the GHG cap-and-trade program and the low-carbon fuel standard provide a solid foundation by putting a price on carbon to encourage the most cost-effective actions to reduce or avoid GHGs. There are multiple pathways to meet California's 2030 climate goals, with varying levels of difficulty and costs. Some pathways are better than others in positioning the state to achieve 2050's deeper carbon reduction goals. SCE explored three alternatives (Table 1) and found that a clean power and electrification path is the most affordable and feasible approach to reaching California's climate and air quality goals. This pathway also will contribute to a strong state economy and can be an engine for creating highly-skilled, middle-income jobs.[8]

Table 1: Comparing 2030 Decarbonization Pathways *(Source: SCE Internal Analysis using E3 Pathways Model. Available at sce.com/pathwayto2030)*

PREFERRED PATHWAY CLEAN POWER AND ELECTRIFICATION	RENEWABLE NATURAL GAS (RNG)	HYDROGEN (H2)
• **80%** carbon-free electricity supported by energy storage • At least **24%** of light-duty vehicles are EVs (7MM) • **15%** of medium-duty and **6%** of heavy-duty vehicles are electrified • **Up to 30%** efficient electrification of commercial and residential space and water heating	• **60%** carbon-free electricity • **24%** of light-duty vehicles are EVs (7MM) • **12%** of medium- and heavy-duty vehicles use compressed natural gas • **42%** of natural gas replaced by RNG	• **80%** carbon-free electricity • **22%** zero-emission light-duty vehicles (4MM H2, 2MM EV) • **4%** of heavy-duty vehicles use H2 • **7%** natural gas replaced by hydrogen
• Dependent on broad adoption of electrified technologies • Most feasible pathway because technology already exists	• Power-to-gas not yet commercially available • A large biogas market requires expensive imports	• Most expensive pathway • Requires significant H2 adoption outside of CA • Lack of sufficient delivery infrastructure
Incremental abatement cost (last 36 MMT)* $79/ton	**Incremental abatement cost (last 36 MMT) $137/ton**	**Incremental abatement cost (last 36 MMT) $262/ton**

*The pathways analyzed include measures to achieve the full 2030 GHG abatement (180 MMT), such as existing state policies and programs included in CARB's Proposed Scoping Plan and additional measures. 36 MMT represents the last 20 percent of GHG abatement needed to meet the 2030 target after offsets are used. This incremental abatement is incentivized by the cap-and-trade market.

The Clean Power and Electrification Pathway…builds on existing state programs and policies to achieve California's climate and air quality goals…

THE VISION FOR CLEAN POWER AND ELECTRIFICATION

The Clean Power and Electrification Pathway is an integrated approach that builds on existing state programs and policies to achieve California's climate and air quality goals, while ensuring that an economy-wide transformation happens in an efficient and — importantly — affordable way. Using existing technologies, the Pathway calls for an electric grid with more carbon-free energy, which is used to clean other sectors of the economy. As the electric supply becomes cleaner, every electric vehicle and electric space or water heater becomes cleaner over its lifespan.

The Clean Power and Electrification Pathway to 2030 is defined by three measures. Each measure is integrated with — and depends upon — the success of the other and should be pursued in concert:

1. **Continue carbon reduction in the electric sector:** increase energy efficiency, provide 80 percent carbon-free energy through large-scale resources and use distributed solar.
2. **Accelerate electrification of the transportation sector**, including placing at least 7 million light-duty passenger vehicles on the roads and supporting a transition to zero-emission trucks and transit.
3. **Increase electrification of buildings:** electrify nearly one-third of residential and commercial space and water heaters.

Continue Carbon Reduction in the Electric Sector

Electric sector measures, including providing 80 percent carbon-free energy from large-scale resources, and leveraging energy efficiency and distributed solar will lower GHG emissions from 84 to 28 million metric tons (MMT)/year (Figure 4). This represents 31 percent of the 2030 GHG reduction goal and aligns with California's pillars for carbon reduction and decades of state energy policy.[9]

Large-scale renewable energy is likely to be the most significant and affordable means of decarbonizing the electric supply. The transmission grid can provide 80 percent carbon-free energy from a combination of renewable resources including wind, solar and large hydroelectric

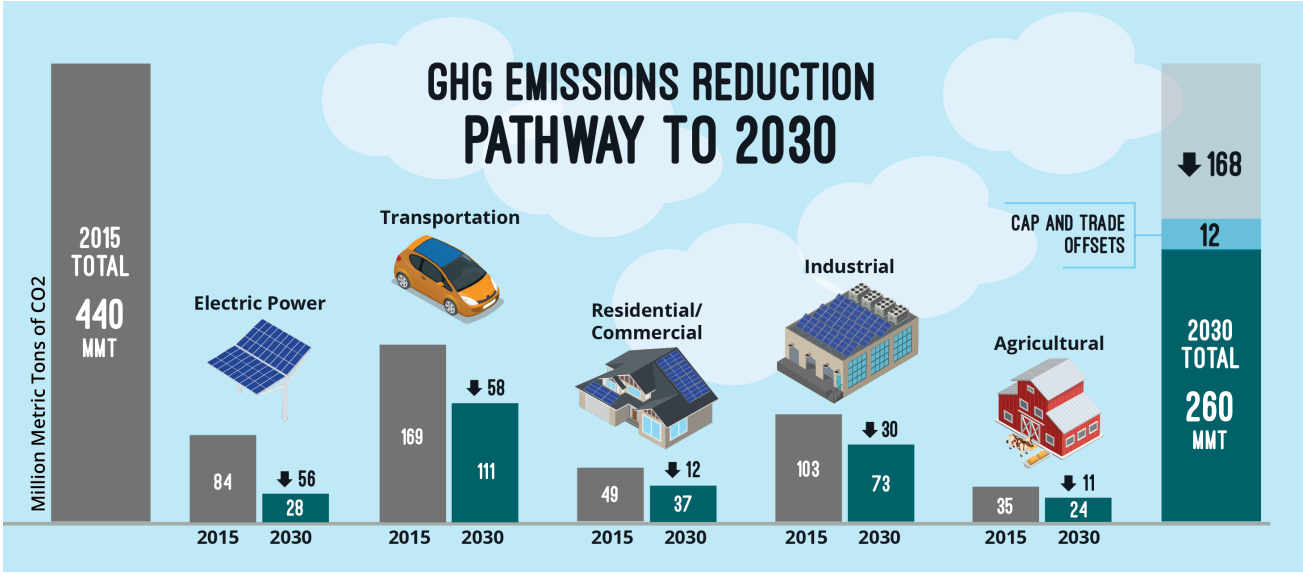


Figure 4: GHG Reductions Across Sectors to Reach 2030 Goals

generators. This will require the development of up to 30 gigawatts (GW) of additional renewable capacity.

California's electric system can incorporate a high penetration of large-scale renewable resources by having a renewables portfolio that is diverse in geography and resource availability, increasing transmission capacity, and enhancing integration across the western grid.

Using a system that relies so heavily on variable resources like wind and solar will require up to 10 additional GW of energy storage from fixed and mobile sources to even out hourly, daily and seasonal energy imbalances (the differences between energy supply and usage).

Even at today's levels of renewables, these energy imbalances can result in California's infamous "duck curve" — the timing imbalance that exists between solar generation and daily peak load.[10] This creates two significant problems for today's electric grid:

- the excess supply of solar at midday, which can lead to shutting down large-scale renewable resources or paying other states to take our power; and
- the significant fast ramp-up in generation to reliably cover the late afternoon and evening electricity need as the sun sets, solar generation fades and customer energy demands peak.

The extremes of the duck curve can be mitigated by the addition of energy storage at scale. Flexible electric vehicle charging could also provide beneficial load shifting — effectively a form of mobile energy storage — that could make electric fueling more affordable. Nonetheless, the magnitude of the duck curve issues is expected to increase as more renewables are added to the system, and some amount of gas-fired generation will be needed for service reliability.

Modernizing the distribution grid with available and evolving technologies will...support our customers' desire to participate in the clean energy future by making their own energy choices.

Reducing or avoiding carbon in the electric sector also requires advances to integrate the clean energy resources that customers are adopting. These resources on the distribution grid are expected to include increased energy efficiency (consistent with SB350's mandate to double energy efficiency), rooftop and community solar, and electric vehicles. Modernizing the distribution grid with available and evolving technologies will allow these distributed energy resources to be better integrated and optimized, will improve system reliability and safety, and will support our customers' desire to participate in the clean energy future by making their own energy choices.

Accelerate Electrification of the Transportation Sector

The GHG reduction potential of the Clean Power and Electrification Pathway hinges on aggressive electrification of light-duty vehicles, i.e., the passenger cars, SUVs and pickup trucks that currently contribute one-quarter of California's GHG emissions.[11] The Pathway calls for at least 24 percent of these vehicles — 7 million — to be electrified by 2030. EVs charging from an increasingly clean electric grid can help reduce transportation sector GHG emissions from 169 to 111 MMT/year, one-third of the 2030 goal. Reduced gasoline demand will also provide the benefit of reducing industrial emissions from refineries.

Electrification of the transportation sector will greatly improve local air quality — an urgent community need across California and particularly

Expanding transportation electrification will require sustainable policies and collaboration between vehicle manufacturers, charging companies, policymakers and electric utilities on issues such as charging standards and consumer awareness.

in Southern California. Many communities, particularly DACs*, are situated near heavily traveled freight corridors, where the concentration of air pollutants often exceeds health-based standards.†

Medium- and heavy-duty vehicles contribute to GHG emissions and are the largest mobile source of smog-forming emissions across the state. The Pathway calls for electrifying 15 percent of medium-duty and 6 percent of heavy-duty vehicles in the state by 2030, supporting needed GHG reductions and improvements in air quality. This will help California position itself for the 2050 GHG goal, which will require the elimination of virtually all vehicle emissions from fossil fuels.[12]

While these vehicle growth targets are ambitious, they are not far outside forecasts of rapid growth in the EV market.[13] Growing customer interest, increasing availability and variety of EV models (Figure 5), and the favorable economics of using EVs for ridesharing and autonomous vehicles have made a high-EV future more plausible than ever. Nations such as the United Kingdom, France, Norway, India and China have announced plans to phase out internal combustion vehicles within coming decades. Manufacturers are responding; GM recently indicated that it expects the company's entire model lineup to run on electricity in the future, and Volvo committed to eliminating traditional internal combustion engines in favor of an electric and hybrid fleet as early as 2019.[14]

Expanding transportation electrification will require sustainable policies and collaboration between vehicle manufacturers, charging companies, policymakers and electric utilities on issues such as charging standards and consumer awareness.[15]

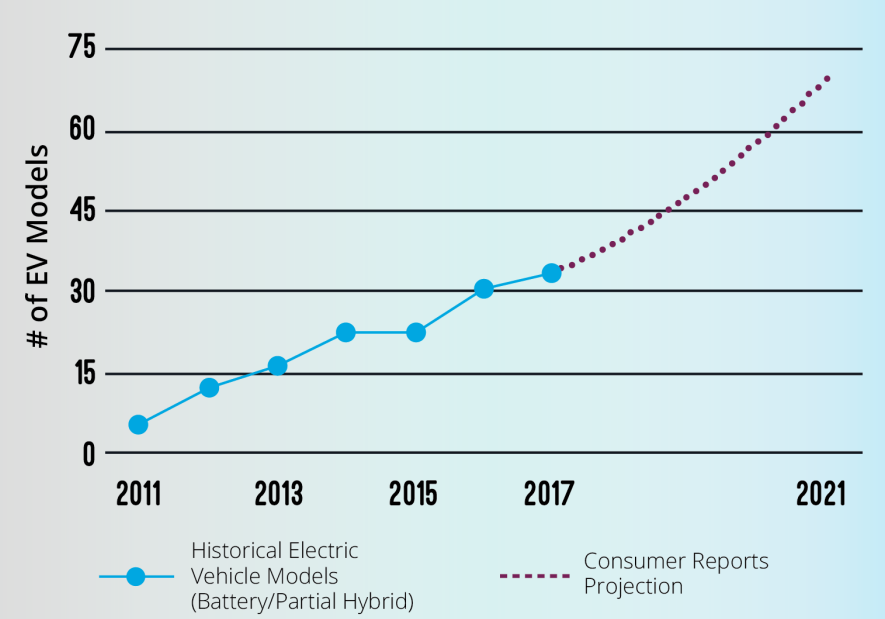


Figure 5: Battery/Partial Hybrid Electric Vehicle Models
(Sources: U.S. Department of Energy/Consumer Reports)

*CalEPA uses the designation Disadvantaged Community (DAC); DACs represent the 25% highest scoring census tracts in CalEnviroScreen 3.0, along with other areas with high amounts of pollution and low-income populations.
†Electrification in areas such as the I-710 corridor between Long Beach and Los Angeles promotes environmental justice by insuring that climate investments provide near-term air quality benefits to a broad set of communities.

Current codes and standards are based on the 20th century power-generation supply framework dominated by fossil fuels.

Continued price incentives, funded by the cap-and-trade and low carbon fuel standard programs, help to lower up-front purchase costs and will help drive additional adoption, as will increased selection and EV availability.

In order to support at least 7 million electric cars by 2030, California will need to have over one million away-from-home charging ports.[16] The state's investor-owned and public utilities have initiated charging infrastructure pilots*[17], but these pilots alone will not meet the expected scale of light-duty EV adoption. Funding will be needed to enable utilities and charging companies to rapidly deploy more infrastructure and chargers.

For medium- and heavy-duty vehicles in urban areas with lower daily mileage, such as buses, delivery vehicles and intermodal freight trucks, electrification is already being deployed and can significantly reduce GHG emissions and improve air quality. Larger plug-in electric and plug-in hybrid electric trucks are in development[18] and will play a greater role in achieving California's 2050 climate and air quality goals. Early deployments must coincide with the development of adequate charging infrastructure to support this critical clean-transportation opportunity.

Increase Electrification of Buildings

Space and water heating currently contributes more than two-thirds of total residential and commercial building GHG emissions. Electrifying nearly one-third of residential and commercial space and water heaters, in addition to increased energy efficiency and strong building codes and standards, could reduce GHG emissions from this sector from 49 to 37 MMT/year, or 7 percent of the 2030 goal.

Expanding electrification of residential and commercial buildings will require new policies and support. Collaboration between manufacturers, repair service providers and policymakers is needed to raise awareness and increase availability of clean, efficient options for electric space and water heating in new building construction and retrofits. Current building codes and standards are based on the 20th-century framework of power generation supply dominated by fossil fuels. This framework should be updated to account for an increasingly decarbonized electric grid.

Updated codes and standards can advance the use of clean electric appliances in new buildings, and incentives can encourage adoption of clean technologies through appliance replacement. For instance, controllable electric space and water heating, which draws from carbon-free electricity powered by solar in the middle of the day, could be an evolution of the Zero Net Energy (ZNE) framework toward more carbon-focused principles for new home construction.[19]

REACHING OUR GOALS WITHIN 12 YEARS

While the Clean Energy and Electrification Pathway is feasible, meeting the 2030 climate goal and also achieving significant improvements in air quality is an urgent challenge, requiring focused efforts and purposeful actions across multiple sectors of the economy (Figure 6). Many of the needed approvals, programs, and market transformations require compromise and consensus among stakeholders with diverse agendas and priorities. Customer adoption is also key to success — and that adoption requires that electricity remains an affordable alternative to fossil fuels.

*For instance, SCE's Charge Ready program is a $22 million pilot to increase charging infrastructure throughout the SCE service territory. The program provides the electrical infrastructure necessary for EV charging, as well as rebates to help pay for charging stations.

SCE's Clean Power and Electrification Pathway calls for integrated actions, programs and policies across all sectors of the economy and strongly links grid decarbonization with electrification right from the start. Planning for 2030 reduction targets now provides a starting point for important, necessary policies, programs and actions needed to meet the even more transformational 2050 climate goals.

Putting millions of electric vehicles on California's roads requires overcoming current barriers, such as vehicle affordability, customer awareness and EV charging accessibility. Durable, predictable incentives that lower EV purchase prices will encourage buyers to choose plug-in models at the end of their gasoline-powered vehicles' 11- year life cycles. Healthier incentives will also be needed to encourage commercial enterprises to switch to electricity as a fuel for buses and delivery and intermodal trucks with 18-year average life spans. In addition, charging station networks will need to expand rapidly to ensure availability at workplaces, multifamily units and along heavily traveled corridors.

An electric system upgrade can take as long as a decade to site, license, build and commission. Planning often involves a consensus-driven process that rarely results in a quick decision. Given this timeline, for the majority of electric power in California to come from renewable and distributed energy resources by 2030, the planning process for additional transmission capacity, new renewable energy development projects, grid modernization and large-scale energy storage investments must start now.

California's Building Energy Efficiency Standards are updated every three years, at the culmination of a multi-year planning process. Development of the 2019 standards is nearing completion, and planning for 2022 standards is an opportunity for strategic discussions. Waiting until the 2025 cycle could cost California the opportunity to decarbonize hundreds of thousands of new homes through electrified space and water heating, at a lower cost than later retrofits.

SUPPORTING THE PATHWAY THROUGH CALIFORNIA POLICY

Integrated Resource Planning

California has begun integrated resource planning — a comprehensive planning process to meet forecasted electricity needs and GHG targets for the electricity sector. Planning a decarbonized grid in a cost-effective manner requires strong coordination and balanced trade-offs for the good of the overall system. Provided that its scope includes consideration of

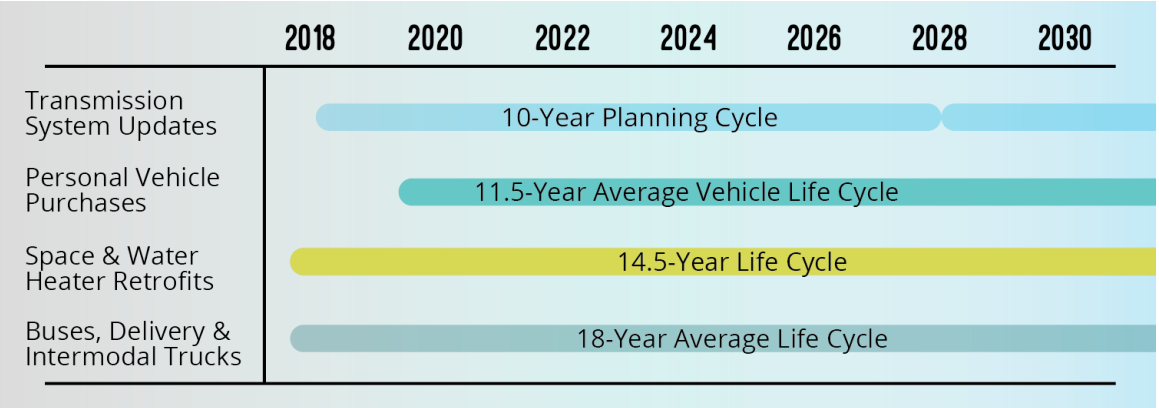


Figure 6: Planning and Life Cycle Timeline *(Source: SCE Internal Analysis)*

Planning a decarbonized grid in a cost-effective manner requires strong central coordination and balanced trade-offs across many parties for the good of the overall system.

the end uses of fossil fuels, this new process has the potential for more efficient planning decisions across economic sectors and electric sector technologies. This kind of planning would include large-scale and customer-sited renewable resources, energy efficiency, electric vehicles, energy storage and more.

GHG Cap-and-Trade
California's market-based, GHG cap-and-trade program is a critical enabler of the Clean Power and Electrification Pathway. Setting a price on GHG emissions with limited offsets creates opportunities to optimize spending in areas that most cost-effectively reduce or avoid GHG emissions. The continued, direct allocation of emissions allowances to utilities helps ensure electricity remains affordable and competitive with fossil fuels during the transition to the clean energy future.

Market-based programs could be bolstered by new flexible policy tools and significant funding to spur customer choice for clean electrification. California policymakers should allocate additional cap-and-trade revenues to programs that encourage consumers to adopt transportation and building electrification.

Transportation Electrification
New or refreshed policies could be enacted to smooth the pathway to broad customer adoption of electric vehicles. These policies could include support for continued and expanded consumer education, continued incentives for EV purchases, adequate charging infrastructure, and pricing that keeps electric fueling costs competitive with gasoline and diesel. Efforts are also needed to ensure the affordability of, and access to EVs for mid- and low-income Californians.

Building Electrification
California's 2022 Building Energy Efficiency Standards could include establishing new building standards to promote the clean electrification of space and water heating in homes and businesses, as well as to require collecting more data on fossil fuel end uses. In addition, energy efficiency programs could be optimized to include a focus on their ability to support GHG emissions reductions.

Keeping Clean Electricity Affordable
A key consideration for many consumers is, and will remain, the cost of electricity. The success of the Clean Power and Electrification Pathway rests on implementing an integrated package of measures that contribute to a strong California economy and maintain affordable electricity for all customers.

The price of electricity and who pays the costs must reflect the services provided to customers. All users of the electric grid must pay their share to support a reliable and increasingly clean electric system. Policies that ensure this fairness will help to keep electricity affordable, which will support customer adoption of the electrified solutions in the transportation and building sectors.

Creating Jobs That Support the Clean Energy Economy
A clean energy future benefits the California economy. Many studies suggest that the clean energy and electrification measures described in the Pathway will lead to higher statewide gross product, real output, state revenue and employment.[20] Highly skilled, middle-income jobs will be created to introduce and service new technologies. The Clean Power and Electrification Pathway can be a double win — both more prosperous and healthier — for California's residents.

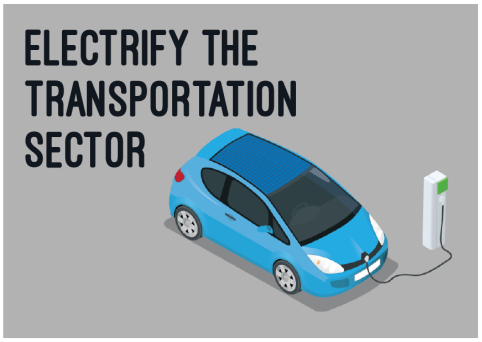
CONCLUSION

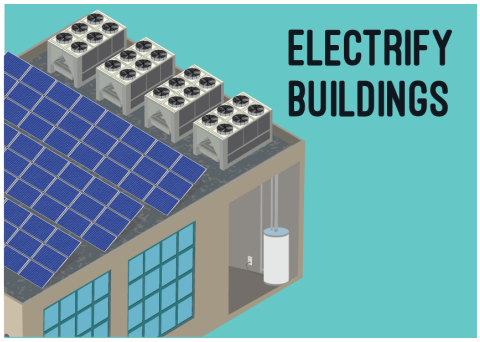
Broad decarbonization and electrification of the economy requires comprehensive policy to guide the transformations across our economy — not just in the electric sector.

Because of California's size and economic complexity, it will be a major undertaking for the state to meet its GHG goal in just 12 years. It is similarly difficult to meet our air quality targets. As the world's sixth largest economy, California has a unique opportunity to create a blueprint that others can follow for an affordable clean energy economy that improves air quality for our communities and mitigates impacts of climate change through greenhouse gas reductions across all energy sectors: electricity, fuels and gases.

Electric utilities are uniquely positioned to facilitate the transformation to a clean energy economy. They have the size, scope and infrastructure assets to deliver clean energy and support electrification for all customers. They also have the capacity to finance prudent investments to maintain and modernize the grid, with regulatory approval. But, they cannot do it alone. Broad decarbonization and electrification of the economy require comprehensive policy to guide the transformations across our economy — not just in the electric sector.

Everyone who lives, works, drives or invests in California is a stakeholder in this effort. The results will be a new energy paradigm that will address the enormous challenge of global climate change through the reduction of GHG emissions, improved air quality and human health — providing access to clean energy for all consumers.





ACRONYMS

AB	Assembly bill (California State Assembly)
BEV	battery-powered electric vehicle
CAISO	California Independent System Operator
CARB	California Air Resources Board
CNG	compressed natural gas
EV	electric vehicle
GHG	greenhouse gas
GW	gigawatt
H2	hydrogen
HDV	heavy-duty vehicle
MDV	medium-duty vehicle
MM	million
MMT	million metric tons
NOx	nitrogen oxide
PHEV	plug-in hybrid electric vehicle
RNG	renewable natural gas
RPS	Renewables Portfolio Standard
SB	Senate bill (California State Senate)
SCE	Southern California Edison
ZNE	zero net energy

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Electronic copies of this white paper and its appendices are available at sce.com/pathwayto2030

The Clean Power and Electrification Pathway

Southern California Edison's proposal to fight climate change and improve air quality

SOUTHERN CALIFORNIA EDISON®

Energy for What's Ahead℠

A dangerous situation

Southern California is one of the most desirable places to live.

It also has some of the **worst air quality** in the nation despite significant progress to improve.

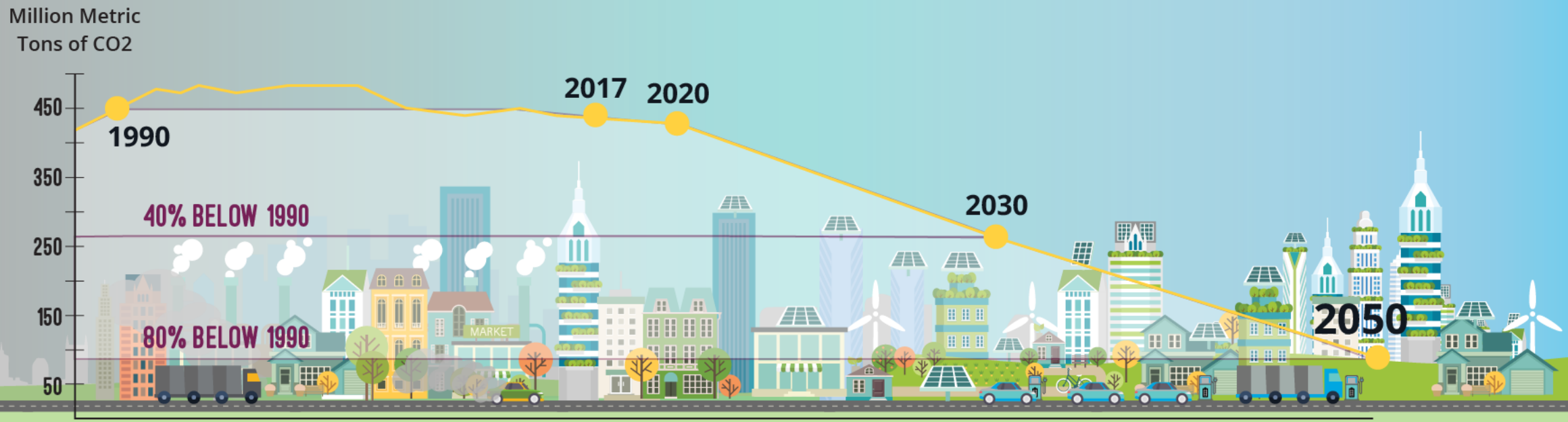
Climate change is causing sea levels to rise and heat waves to become more intense.

By burning fossil fuels, we are making each other sick.

SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

Goals to improve

- California set a goal to **reduce emissions 40%** below 1990 levels by 2030, and 80% by 2050.



If we want to **reduce emissions**, eventually we have to **replace** many of the things we rely on today that require combustion.

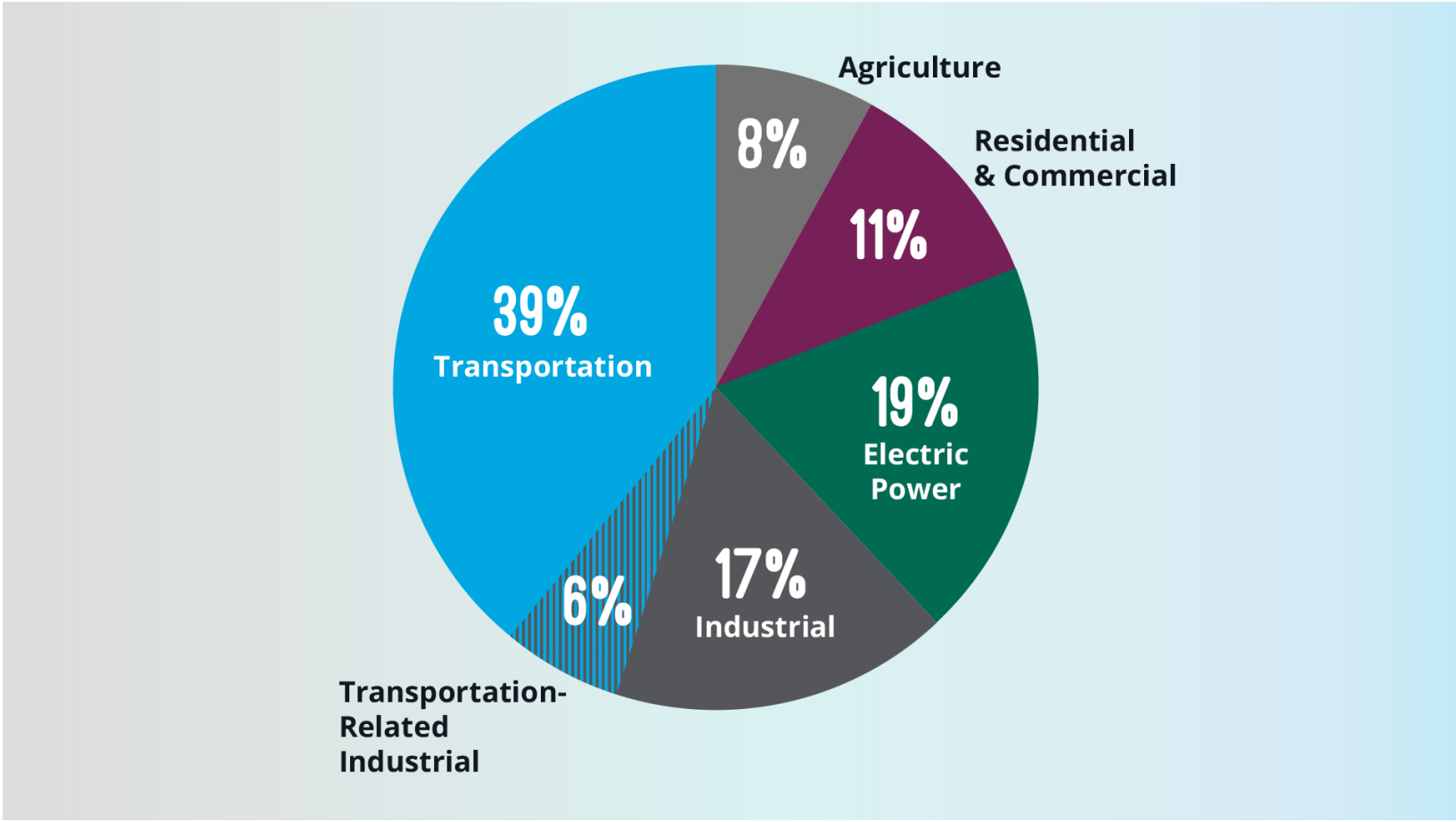
SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

Emissions contributors

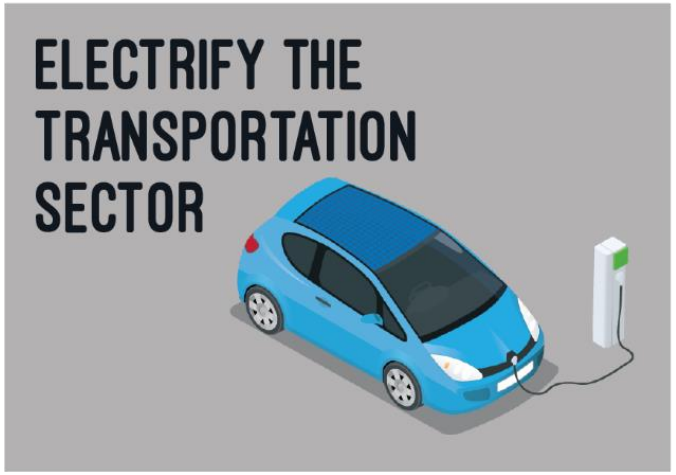
- The largest contributor is **transportation**, followed by the electric sector.

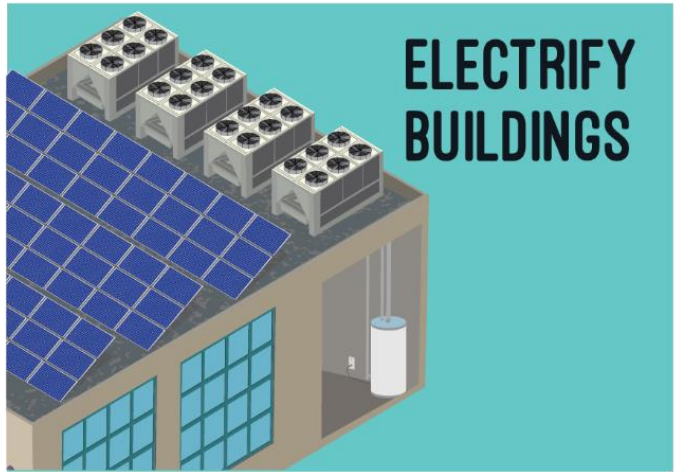
  Industrial, and commercial and residential sectors trail not too far behind.

- The most **practical and economical** way to create real change is for sectors to **work together** to find an affordable alternative to fossil fuels.



SCE's integrated solution





Clean the power grid. And electrify.

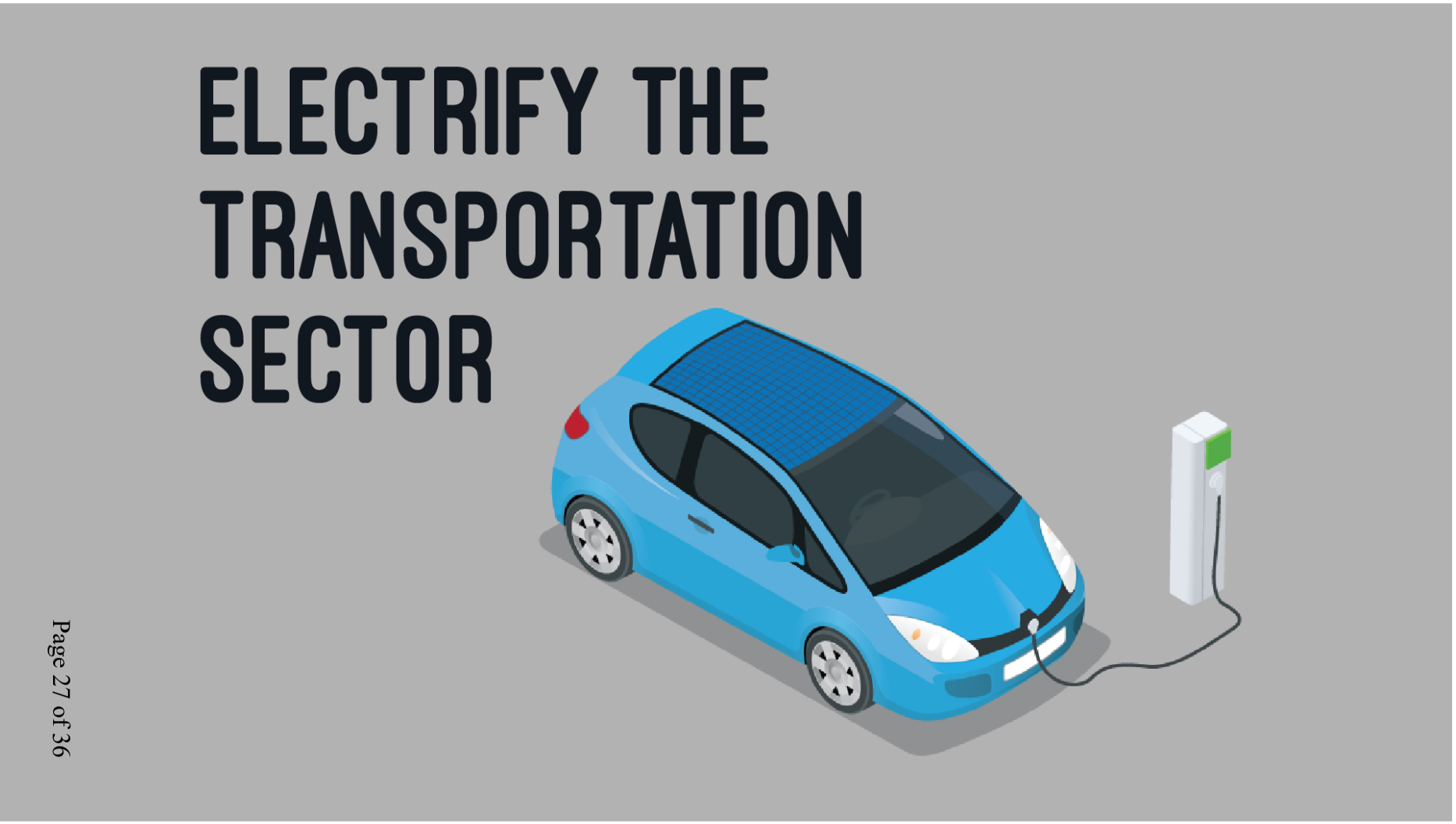
SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

Solution Part 1: Clean the power grid

- By 2030, create an electric generation mix powered by as much as **80% carbon-free resources.**
- More **solar**, **wind**, **hydropower** and other zero-emission sources, along with **battery storage.**
- Currently at about 40%.

SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

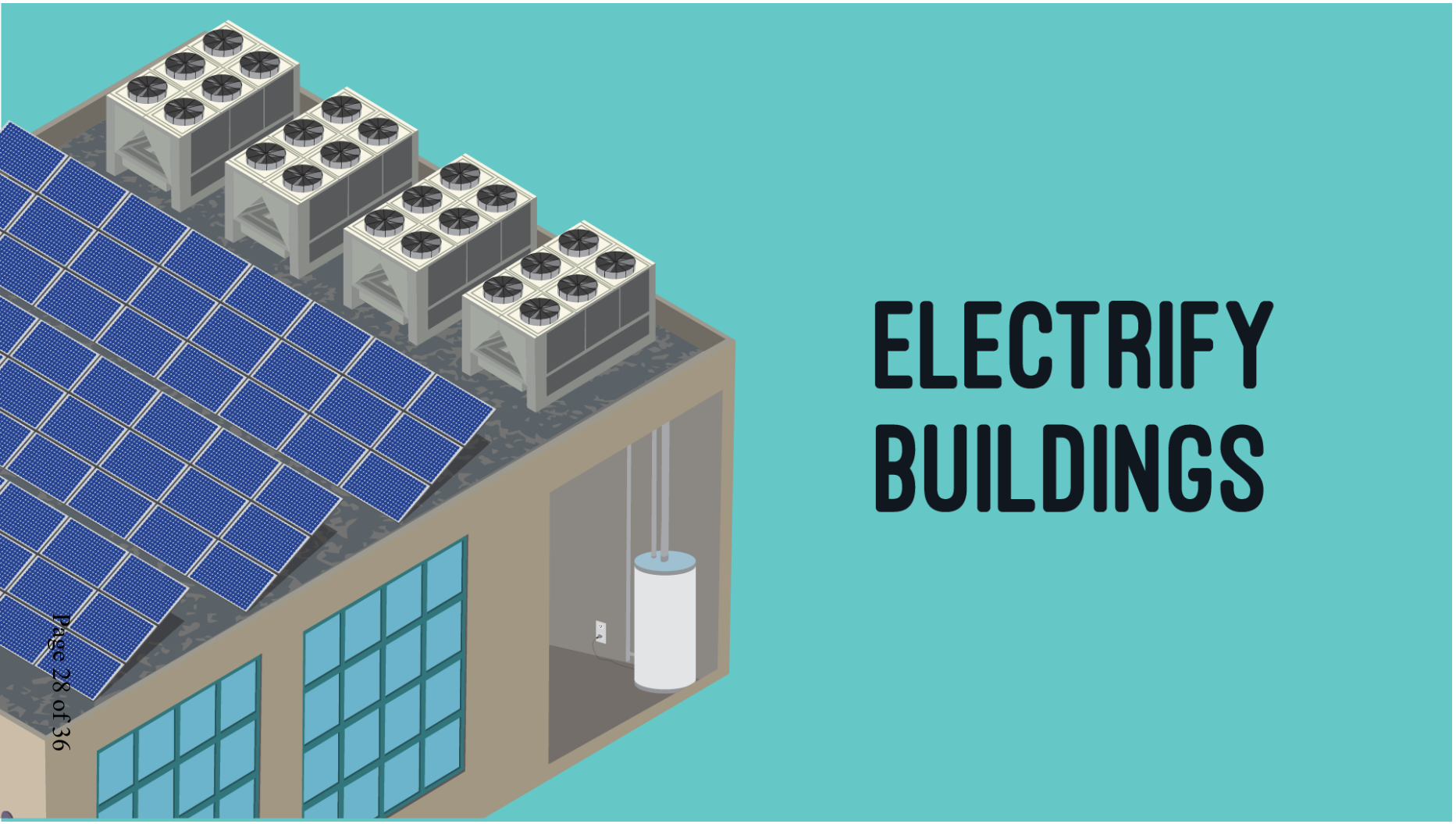
Solution Part 2: Electrify vehicles



- By 2030, **electrify 25% of cars and trucks** – about 7 million in total.
- Transportation accounts for **39%** of emissions today.
- Use **zero-emission** electric generation to power zero-emission vehicles.

SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

Solution Part 3: Electrify buildings



- By 2030, electrify **one-third** of space and water heating in buildings.
- Buildings use **fossil fuels** for space & water heating, and they **don't *need* to**.
- Now powered by clean, **affordable** electricity.

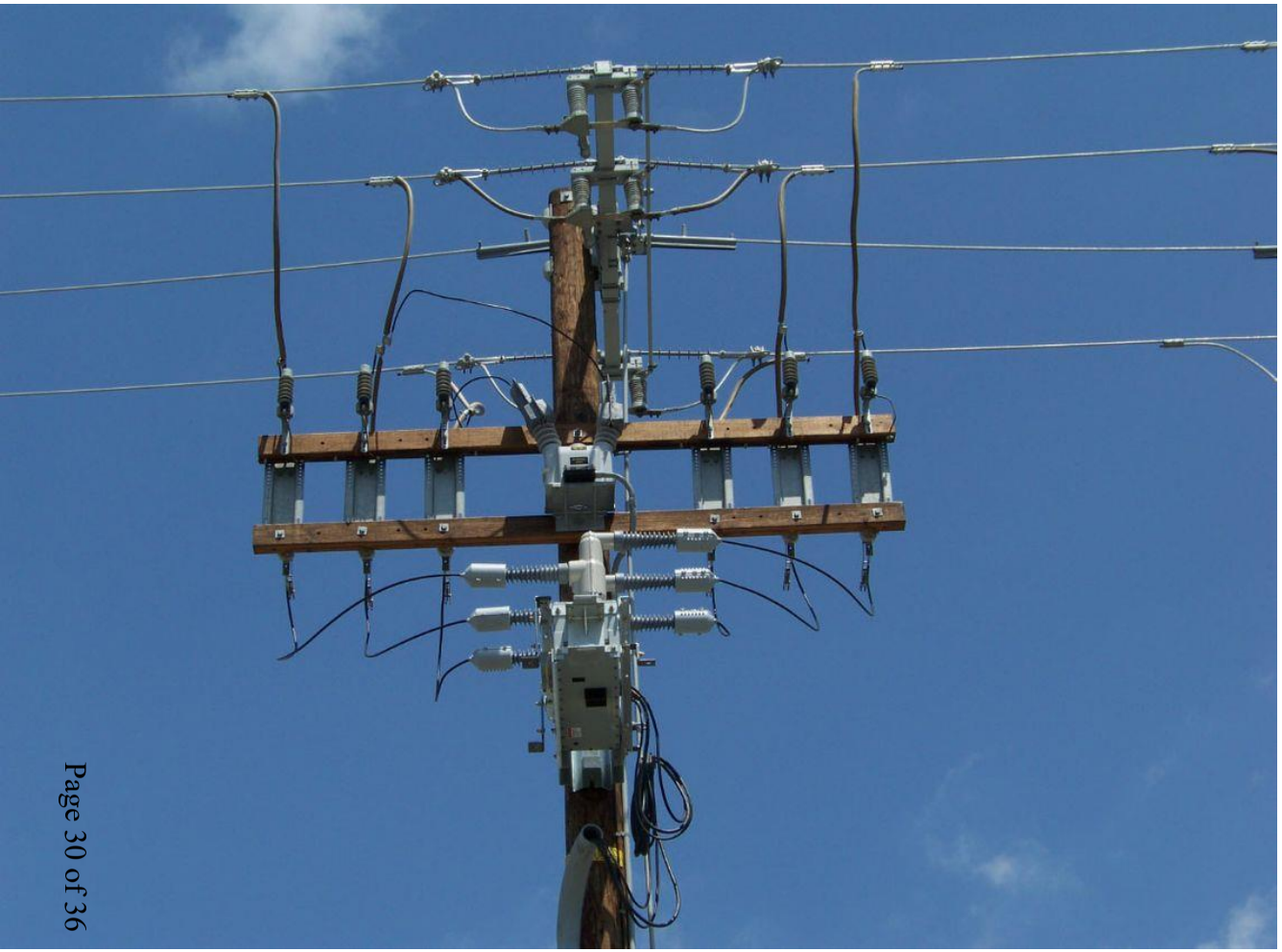
SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

Imagine a world where the energy that powers our lives and propels us forward is provided by the Earth's clean resources.

This is our clean energy future.

SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

The Power Grid of the Future



Remote Integrated Switch on a power pole at the crossarm.

- SCE is modernizing the grid to meet the **changing needs and expectations** of customer and to help California achieve its **clean energy goals**.
- We are investing more than **$13B** into our power grid between 2017-2019 and will continue to invest in the grid at these levels for several years into the future.
- SCE has also proposed spending an additional $2.1B between 2018-2020 in **grid modernization** to enhance grid capabilities in the areas of a**utomation, telecommunication, and technology platforms.**

SOUTHERN CALIFORNIA EDISON®
Energy for What's Ahead℠

Questions & Discussion

SGVCOG / ACE Integration

	Activity	2017				2018												Status
		S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Project Identification	**Develop process for project identification, development and approval**																	Draft process reviewed by committees in February, presented to Governing Board in March, and distributed to member agencies for comment in March.
	Submit process for project identification, development and approval to GB																	
	Conduct outreach to member agencies to develop/ refine project list.																	
	Develop and approve initial project list																	
Personnel and Admin. Restructure	**Conduct ACE/COG employee outreach**																	Joint monthly staff meetings are being held.
	Develop consolidated personnel system																	Salary/classification study initiated in February and be completed in October 2018.
	Implement consolidated personnel system																	Draft combined employee handbook being reviewed internally. To be considered for adoption in April 2018. Additional consolidation pending Comp/Class study.
	Develop consolidated admin and finance system																	Being developed by staff. Draft finance manual to be prepared by April.
	Implement consolidated admin and finance system																	Action pending adoption of consolidated finance manual.
Budget	**Develop consolidated budget**																	Anticipate fully consolidated budget to be presented for FY 19-20.
	Present budget to GB for approval																	

Accomplishments:

- Developed and approved updated JPA (November 2017)
- JPA approved by a majority of member agencies (19) (December 2017)
- Developed and approved updated bylaws (December 2017)
- Election process for Construction Committee approved by Governing Board (January 2018). Elections to be held in May.
- Contract awarded for compensation / classification study (January 2018)
- Updated ACE Logo approved by Governing Board (February 2018).

Updated 4/02/2018

DATE: April 16, 2018

TO: San Gabriel Valley Council of Governments Public Works TAC

FROM: Marisa Creter, Executive Director

RE: April Update on Measure M Subregional Fund Programming

RECCOMENDED ACTION

For information only.

BACKGROUND

In June, the Metro Board of Directors adopted the Measure M guidelines, establishing a process by which subregional funds under Measure M will be programmed by the subregional entities, including the SGVCOG, through the development of five-year subregional fund programming plans. In accordance with these guidelines, five-year project specific programming plans, or MSP 5-Year Plans, will have to be submitted to the Metro Board of Directors for adoption, which will subsequently guide the flow of funding to various specific projects that fall within each program. Based on the projected initial five-year cash flow for each subregional fund in the San Gabriel Valley subregion and recommendations by the SGVCOG Governing Board, the funds that would be available for programming are as follows:

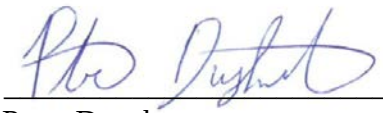
Program	Sub-region	Funding Dates	FY 2017 FY 2018	FY 2018 FY 2019	FY 2019 FY 2020	FY 2020 FY 2021	FY 2021 FY 2022	5-Year Total	40-Year Fund Total	5-Year Percentage of Total
Active Transportation Prog. (Including Greenway Proj.)	sg	FY 2018-57	$ 2.40	$ 3.00	$ 3.00	$ 3.10	$ 3.20	$ 14.70	$ 231.00	6.36%
Bus System Improvement Program	sg	FY 2018-57	$ 0.50	$ -	$ -	$ -	$ -	$ 0.50	$ 55.00	0.91%
First/Last Mile and Complete Streets	sg	FY 2018-57	$ 2.00	$ 2.00	$ 4.00	$ 4.60	$ 4.80	$ 17.40	$ 198.00	8.79%
Highway Demand Based Prog. (HOV Ext. & Connect.)	sg	FY 2018-57	$ -	$ -	$ -	$ -	$ -	$ -	$ 231.00	0.00%
Goods Movement (Improvements & RR Xing Elim.)	sg	FY 2048-57						$ -	$ 33.00	0.00%
Highway Efficiency Program	sg	FY 2048-57	$ 2.30	$ 2.40	$ 0.50			$ 5.20	$ 534.00	0.97%
ITS-Technology Program (Advanced Signal Tech.)	sg	FY 2048-57						$ -	$ 66.00	0.00%
San Gabriel Valley MY Subregion Total								$ 37.80	$ 1,348.00	2.80%
Gold Line Foothill Extension to Claremont	sg	FY 2019-25			?	?	?		$ 1,019.00	
SR-71 Gap	sg	FY 2022-26							$ 248.00	
SR-57/60	sg	FY 2025-31							$ 205.00	
Gold Line Eastside Extension	sg	FY 2029-35							$ 543.00	
I-605/10 Interchange	sg	FY 2043-47							$ 126.00	
SR-60/605 Interchange	sg	FY 2043-47							$ 130.00	
Major Projects San Gabriel Valley Total									$ 2,271.00	
Overall Total									$ 3,619.00	

Table 1.
Adopted Measure M Multi-Year Subregional Program 5-Year Allocation ($ in millions)

Now that SGVCOG Staff has approved and finalized monetary allocations for each of the sub-programs of the MSP 5-Year Plan to work with, COG staff can draft a list of selected projects to be constructed based on the amount of money that is available for each sub-program. Below are

the steps for this process; these steps were also presented to the Transportation Committee in January 2018 when COG staff presented the Committee with the proposed Measure M Subregional Funds Public Outreach and Participation Plan, which was adopted by the Governing Board in February 2018.

1. Staff is in the initial stages of developing a preliminary proposed project list for each sub-fund based on cash flow and results for the adopted Mobility Matrix.
2. This list will be distributed to COG member agencies and other stakeholders and posted on the COG's website for comment. Staff will attempt to make personal contact with known stakeholders and offer briefings if desired.
3. The proposed project list, as well as any comments received, will be agendized for the Public Works and Planning TACs in April 2018 for discussion and public input.
4. Recommendations from the TACs will be forwarded to the COG's Transportation Committee and agendized for the May 2018 meeting for discussion and public input.
5. Final recommendations from the COG's Transportation Committee will be forwarded to the COG's Governing Board for final approval in June 2018.
6. Upon approval of the MSP 5-Year Plan by the Metro Board and subsequent execution of funding MOU's with each individual project implementing agency, further outreach regarding the design, environmental clearance and construction of those projects will be handled individually by the implementing agency in accordance with funding guidelines and local policies.

Prepared by: 

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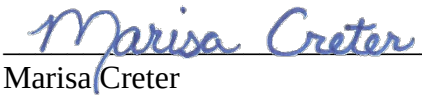
Approved by: 

Marisa Creter
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