

## Appendix Q

### Discussion of 2022 Scoping Plan

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### INTRODUCTION

The Scoping Plan is a greenhouse gas emission (GHG) reduction roadmap developed and updated by the California Air Resources Board (CARB) at least once every five years, as required by Assembly Bill (AB) 32. It lays out the transformations needed across various sectors to reduce GHG emissions and reach the State's climate targets. CARB published the Final 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update) in November 2022, as the third update to the initial plan that was adopted in 2008. The initial 2008 Scoping Plan laid out a path to achieve the AB 32 target of returning to 1990 levels of GHG emissions by 2020, a reduction of approximately 15 percent below business as usual activities.<sup>1</sup> The 2008 Scoping Plan included a mix of incentives, regulations, and carbon pricing, laying out the portfolio approach to addressing climate change and clearly making the case for using multiple tools to meet California's GHG targets. The 2013 Scoping Plan Update (adopted in 2014) assessed progress toward achieving the 2020 target and made the case for addressing short-lived climate pollutants (SLCPs).<sup>2</sup> The 2017 Scoping Plan Update,<sup>3</sup> shifted focus to the newer Senate Bill (SB) 32 goal of a 40 percent reduction below 1990 levels by 2030 by laying out a detailed cost-effective and technologically feasible path to this target, and also assessed progress towards achieving the AB 32 goal of returning to 1990 GHG levels by 2020. The 2020 goal was ultimately reached in 2016, four years ahead of the schedule called for under AB 32.

The 2022 Scoping Plan Update is the most comprehensive and far-reaching Scoping Plan developed to date. It identifies a technologically feasible, cost-effective, and equity-focused path to achieve new targets for carbon neutrality by 2045 and to reduce anthropogenic GHG emissions to at least 85 percent below 1990 levels, while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan.<sup>4</sup> The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the 2022 Scoping Plan Update incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the 2022 Scoping Plan Update also includes discussion

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<sup>1</sup> CARB. 2008. Climate Change Scoping Plan. [ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](http://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/document/adopted_scoping_plan.pdf).

<sup>2</sup> CARB. 2014. First Update to the Climate Change Scoping Plan. [ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf).

<sup>3</sup> CARB. 2017. California's 2017 Climate Change Scoping Plan. [ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping\\_plan\\_2017.pdf](http://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf).

<sup>4</sup> CARB, California's 2017 Climate Change Scoping Plan, 2017, [ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping\\_plan\\_2017.pdf](http://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf).

for the first time of the natural and working lands sectors as sources for both sequestration and carbon storage, and as sources of emissions as a result of wildfires.

**Table 1**  
**Estimated Statewide Greenhouse Gas Emissions Reductions in the 2022 Scoping Plan**

<b>Emissions Scenario</b>	<b>GHG Emissions (MMTCO<sub>2e</sub>)</b>
<b>2019</b>	
2019 State GHG Emissions	404
<b>2030</b>	
2030 BAU Forecast	312
2030 GHG Emissions without Carbon Removal and Capture	233
2030 GHG Emissions with Carbon Removal and Capture	226
2030 Emissions Target Set by AB 32 (i.e., 1990 level by 2030)	260
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2030	52 (16.7%) <sup>a</sup>
<b>2045</b>	
2045 BAU Forecast	266
2045 GHG Emissions without Carbon Removal and Capture	72
2045 GHG Emissions with Carbon Removal and Capture	(3)
<i>MMTCO<sub>2e</sub> = million metric tons of carbon dioxide equivalents; parenthetical numbers represent negative values.</i>	
<i><sup>a</sup> 312 – 260 = 52. 52 / 312 = 16.7%</i>	
<i>Source: CARB, Final 2022 Climate Change Scoping Plan, November 2022.</i>	

The 2022 Scoping Plan Update reflects existing and recent direction in the Governor’s Executive Orders and State Statutes, which identify policies, strategies, and regulations in support of and implementation of the Scoping Plan. Among these include Executive Order B-55-18 and AB 1279 (The California Climate Crisis Act), which identify the 2045 carbon neutrality and GHG reduction targets required for the Scoping Plan.

Table 2 below provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

**Table 2**  
**Major Climate Legislation and Executive Orders Enacted Since the 2017 Scoping Plan**

Bill/Executive Order	Summary
<p><b>Assembly Bill 1279 (AB 1279) (Muratsuchi, Chapter 337, Statutes of 2022)</b></p> <p><i>The California Climate Crisis Act</i></p>	<p>AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that the Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO<sub>2</sub> removal solutions and carbon capture, utilization, and storage (CCUS) technologies.</p> <p>This bill is reflected directly in the 2022 Scoping Plan Update.</p>
<p><b>Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022)</b></p> <p><i>Carbon Capture, Removal, Utilization, and Storage Program</i></p>	<p>SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and carbon dioxide removal (CDR) projects and technology.</p> <p>The bill requires CARB, on or before January 1, 2025, to adopt regulations creating a unified state permitting application for approval of CCUS and CDR projects. The bill also requires the Secretary of the Natural Resources Agency to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project.</p> <p>The 2022 Scoping Plan Update modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.</p>
<p><b>Senate Bill 846 (SB 846) (Dodd, Chapter 239, Statutes of 2022)</b></p> <p><i>Diablo Canyon Powerplant: Extension of Operations</i></p>	<p>SB 846 extends the Diablo Canyon Power Plant's sunset date by up to five additional years for each of its two units and seeks to make the nuclear power plant eligible for federal loans. The bill requires that the California Public Utilities Commission (CPUC) not include and disallow a load-serving entity from including in their adopted resource plan, the energy, capacity, or any attribute from the Diablo Canyon power plant.</p> <p>The 2022 Scoping Plan Update explains the emissions impact of this legislation.</p>
<p><b>Senate Bill 1020 (SB 1020) (Laird, Chapter 361, Statutes of 2022)</b></p> <p><i>Clean Energy, Jobs, and Affordability Act of 2022</i></p>	<p>SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target year of 2045 to 2035. This bill requires each state agency to individually achieve the 100 percent goal by 2035 with specified requirements. This bill requires the CPUC, California Energy Commission (CEC), and CARB, on or before December 1, 2023, and annually thereafter, to issue a joint reliability progress report that reviews system and local reliability.</p> <p>The bill also modifies the requirement for CARB to hold a portion of its Scoping Plan workshops in regions of the state with the most significant exposure to air pollutants by further specifying that this includes communities with minority populations or low-income communities in areas designated as being in extreme federal non-attainment.</p> <p>The 2022 Scoping Plan Update describes the implications of this legislation on emissions.</p>
<p><b>Senate Bill 1137 (SB 1137) (Gonzales, Chapter 365, Statutes of 2022)</b></p>	<p>SB 1137 prohibits the development of new oil and gas wells or infrastructure in health protection zones, as defined, except for purposes of public health and safety or other limited exceptions. The bill requires operators of existing oil and gas wells or infrastructure within health protection zones to undertake</p>

Bill/Executive Order	Summary
<p><i>Oil &amp; Gas Operations:</i> <i>Location Restrictions: Notice of Intention: Health protection zone: Sensitive receptors</i></p>	<p>specified monitoring, public notice, and nuisance requirements. The bill requires CARB to consult and concur with the California Geologic Energy Management Division (CalGEM) on leak detection and repair plans for these facilities, adopt regulations as necessary to implement emission detection system standards, and collaborate with CalGEM on public access to emissions detection data.</p>
<p><b>Senate Bill 1075 (SB 1075) (Skinner, Chapter 363, Statutes of 2022)</b>  <i>Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases</i></p>	<p>SB 1075 requires CARB, by June 1, 2024, to prepare an evaluation that includes: policy recommendations regarding the use of hydrogen, and specifically the use of green hydrogen, in California; a description of strategies supporting hydrogen infrastructure, including identifying policies that promote the reduction of GHGs and short-lived climate pollutants; a description of other forms of hydrogen to achieve emission reductions; an analysis of curtailed electricity; an estimate of GHG and emission reductions that could be achieved through deployment of green hydrogen through a variety of scenarios; an analysis of the potential for opportunities to integrate hydrogen production and applications with drinking water supply treatment needs; policy recommendations for regulatory and permitting processes associated with transmitting and distributing hydrogen from production sites to end uses; an analysis of the life-cycle GHG emissions from various forms of hydrogen production; and an analysis of air pollution and other environmental impacts from hydrogen distribution and end uses.</p> <p>This bill would inform the production of hydrogen at the scale called for in the 2022 Scoping Plan Update.</p>
<p><b>Assembly Bill 1757 (AB 1757) (Garcia, Chapter 341, Statutes of 2022)</b>  <i>California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands</i></p>	<p>AB 1757 requires the California Natural Resources Agency (CNRA), in collaboration with CARB, other state agencies, and an expert advisory committee, to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045 by January 1, 2024. These targets must support state goals to achieve carbon neutrality and foster climate adaptation and resilience.</p> <p>This bill also requires CARB to develop standard methods for state agencies to consistently track GHG emissions and reductions, carbon sequestration, and additional benefits from natural and working lands over time. These methods will account for GHG emissions reductions of CO<sub>2</sub>, methane, and nitrous oxide related to natural and working lands and the potential impacts of climate change on the ability to reduce GHG emissions and sequester carbon from natural and working lands, where feasible.</p> <p>This 2022 Scoping Plan Update describes the next steps and implications of this legislation for the natural and working lands sector.</p>
<p><b>Senate Bill 1206 (SB 1206) (Skinner, Chapter 884, Statutes of 2022)</b>  <i>Hydrofluorocarbon gases: sale or distribution</i></p>	<p>SB 1206 mandates a stepped sales prohibition on newly produced high-global warming potential (GWP) HFCs to transition California's economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment. Additionally, SB 1206 also requires CARB to develop regulations to increase the adoption of very low-, i.e., GWP &lt; 10, and no-GWP technologies in sectors that currently rely on higher-GWP HFCs.</p>
<p><b>Senate Bill 27 (SB 27) (Skinner, Chapter 237, Statutes of 2021)</b>  <i>Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects</i></p>	<p>SB 27 requires CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This bill also requires CARB to establish specified CO<sub>2</sub> removal targets for 2030 and beyond as part of its Scoping Plan. Under SB 27, CNRA is to establish and maintain a registry to identify projects in the state that drive climate action on natural and working lands and are seeking funding.</p>

Bill/Executive Order	Summary
	<p>CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry.</p> <p>This bill is reflected directly in the 2022 Scoping Plan Update as CO2 removal targets for 2030 and 2045 in support of carbon neutrality.</p>
<p><b>Senate Bill 596 (SB 596)</b> <b>(Becker, Chapter 246, Statutes of 2021)</b></p> <p><i>Greenhouse Gases: Cement Sector: Net-zero Emissions Strategy</i></p>	<p>SB 596 requires CARB, by July 1, 2023, to develop a comprehensive strategy for the state's cement sector to achieve net-zero-emissions of GHGs associated with cement used within the state as soon as possible, but no later than December 31, 2045. The bill establishes an interim target of 40 percent below the 2019 average GHG intensity of cement by December 31, 2035. Under SB 596, CARB must:</p> <ul style="list-style-type: none"> <li>• Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions.</li> <li>• Evaluate the feasibility of the 2035 interim target (40 percent reduction in GHG intensity) by July 1, 2028.</li> <li>• Coordinate and consult with other state agencies.</li> <li>• Prioritize actions that leverage state and federal incentives.</li> <li>• Evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity.</li> </ul> <p>The 2022 Scoping Plan Update modeling is designed to achieve these outcomes.</p>
<p><b>Executive Order N-82-20</b></p>	<p>Governor Newsom signed Executive Order N-82-20 in October 2020 to combat the climate and biodiversity crises by setting a statewide goal to conserve at least 30 percent of California's land and coastal waters by 2030. The Executive Order also instructed the CNRA, in consultation with other state agencies, to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the state's carbon neutrality goal and build climate resilience. In addition to setting a statewide conservation goal, the Executive Order directed CARB to update the target for natural and working lands in support of carbon neutrality as part of this Scoping Plan, and to take into consideration the NWL Climate Smart Strategy.</p> <p>CO2 Executive Order N-82-20 also calls on the CNRA, in consultation with other state agencies, to establish the California Biodiversity Collaborative (Collaborative). The Collaborative shall be made up of governmental partners, California Native American tribes, experts, business and community leaders, and other stakeholders from across the state. State agencies will consult the Collaborative on efforts to:</p> <ul style="list-style-type: none"> <li>• Establish a baseline assessment of California's biodiversity that builds upon existing data and can be updated over time.</li> <li>• Analyze and project the impact of climate change and other stressors in California's biodiversity.</li> <li>• Inventory current biodiversity efforts across all sectors and highlight opportunities for additional action to preserve and enhance biodiversity.</li> </ul> <p>CNRA also is tasked with advancing efforts to conserve biodiversity through various actions, such as streamlining the state's process to approve and facilitate projects related to environmental restoration and land management. The California Department of Food and Agriculture (CDFA) is directed to advance efforts to conserve biodiversity through measures such as reinvigorating populations of pollinator insects, which restore biodiversity and improve agricultural production.</p>

Bill/Executive Order	Summary
	The Natural and Working Lands Climate Smart Strategy informs the 2022 Scoping Plan Update.
<b>Executive Order N-79-20</b>	<p>Governor Newsom signed Executive Order N-79-20 in September 2020 to establish targets for the transportation sector to support the state in its goal to achieve carbon neutrality by 2045. The targets established in this Executive Order are:</p> <ul style="list-style-type: none"> <li>• 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035.</li> <li>• 100 percent of medium- and heavy-duty vehicles will be zero-emission by 2045 for all operations where feasible, and by 2035 for drayage trucks.</li> <li>• 100 percent of off-road vehicles and equipment will be zero-emission by 2035 where feasible.</li> </ul> <p>The Executive Order also tasked CARB to develop and propose regulations that require increasing volumes of zero- electric passenger vehicles, medium- and heavy-duty vehicles, drayage trucks, and off-road vehicles toward their corresponding targets of 100 percent zero-emission by 2035 or 2045, as listed above.</p> <p>The 2022 Scoping Plan Update modeling reflects achieving these targets.</p>
<b>Executive Order N-19-19</b>	<p>Governor Newsom signed Executive Order N-19-19 in September 2019 to direct state government to redouble its efforts to reduce GHG emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy. This Executive Order instructs the Department of Finance to create a Climate Investment Framework that:</p> <ul style="list-style-type: none"> <li>• Includes a proactive strategy for the state's pension funds that reflects the increased risks to the economy and physical environment due to climate change.</li> <li>• Provides a timeline and criteria to shift investments to companies and industry sectors with greater growth potential based on their focus of reducing carbon emissions and adapting to the impacts of climate change.</li> <li>• Aligns with the fiduciary responsibilities of the California Public Employees' Retirement System, California State Teachers' Retirement System, and the University of California Retirement Program.</li> </ul> <p>Executive Order N-19-19 directs the State Transportation Agency to leverage more than \$5 billion in annual state transportation spending to help reverse the trend of increased fuel consumption and reduce GHG emissions associated with the transportation sector. It also calls on the Department of General Services to leverage its management and ownership of the state's 19 million square feet in managed buildings, 51,000 vehicles, and other physical assets and goods to minimize state government's carbon footprint. Finally, it tasks CARB with accelerating progress toward California's goal of five million ZEV sales by 2030 by:</p> <ul style="list-style-type: none"> <li>• Developing new criteria for clean vehicle incentive programs to encourage manufacturers to produce clean, affordable cars.</li> <li>• Proposing new strategies to increase demand in the primary and secondary markets for ZEVs.</li> <li>• Considering strengthening existing regulations or adopting new ones to achieve the necessary GHG reductions from within the transportation sector.</li> </ul>

Bill/Executive Order	Summary
	The 2022 Scoping Plan Update modeling reflects efforts to accelerate ZEV deployment.
<p><b>Senate Bill 576 (SB 576)</b> <b>(Umberg, Chapter 374, Statutes of 2019)</b></p> <p><i>Coastal Resources: Climate Ready Program and Coastal Climate Change Adaptation, Infrastructure and Readiness Program</i></p>	Sea level rise, combined with storm-driven waves, poses a direct risk to the state's coastal resources, including public and private real property and infrastructure. Rising marine waters threaten sensitive coastal areas, habitats, the survival of threatened and endangered species, beaches, other recreation areas, and urban waterfronts. SB 576 mandates that the Ocean Protection Council develop and implement a coastal climate adaptation, infrastructure, and readiness program to improve the climate change resiliency of California's coastal communities, infrastructure, and habitat. This bill also instructs the State Coastal Conservancy to administer the Climate Ready Program, which addresses the impacts and potential impacts of climate change on resources within the conservancy's jurisdiction.
<p><b>Assembly Bill 65 (AB 65)</b> <b>(Petrie- Norris, Chapter 347, Statutes of 2019)</b></p> <p><i>Coastal Protection: Climate Adaption: Project Prioritization: Natural Infrastructure: Local General Plans</i></p>	This bill requires the State Coastal Conservancy, when it allocates any funding appropriated pursuant to the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018, to prioritize projects that use natural infrastructure in coastal communities to help adapt to climate change. The bill requires the conservancy to provide information to the Office of Planning and Research on any projects funded pursuant to the above provision to be considered for inclusion into the clearinghouse for climate adaptation information. The bill authorizes the conservancy to provide technical assistance to coastal communities to better assist them with their projects that use natural infrastructure.
<p><b>Executive Order B-55-18</b></p>	<p>Governor Brown signed Executive Order B-55-18 in September 2018 to establish a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Policies and programs undertaken to achieve this goal shall:</p> <ul style="list-style-type: none"> <li>• Seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities.</li> <li>• Be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state's water supply, water quality, and native plants and animals.</li> </ul> <p>This Executive Order also calls for CARB to:</p> <ul style="list-style-type: none"> <li>• Develop a framework for implementation and accounting that tracks progress toward this goal.</li> <li>• Ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.</li> </ul> <p>The 2022 Scoping Plan Update is designed to achieve carbon neutrality no later than 2045 and the modeling includes technology and fuel transitions to achieve that outcome.</p>
<p><b>Senate Bill 100 (SB 100)</b> <b>(De León, Chapter 312, Statutes of 2018)</b></p> <p><i>California Renewables Portfolio Standard Program: emissions of greenhouse gases</i></p>	<p>Under SB 100, the CPUC, CEC, and CARB shall use programs under existing laws to achieve 100 percent clean electricity. The statute requires these agencies to issue a joint policy report on SB 100 every four years. The first of these reports was issued in 2021.</p> <p>The 2022 Scoping Plan Update reflects the SB 100 Core Scenario resource mix with a few minor updates.</p>



Bill/Executive Order	Summary
<p><b>Assembly Bill 2127 (AB 2127) (Ting, Chapter 365, Statutes of 2018)</b></p> <p><i>Electric Vehicle Charging Infrastructure: Assessment</i></p>	<p>This bill requires the CEC, working with CARB and the CPUC, to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and of reducing emissions of GHGs to 40 percent below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure.</p> <p>This bill supports the deployment of ZEVs as modeled in the 2022 Scoping Plan Update.</p>
<p><b>Senate Bill 30 (SB 30) (Lara, Chapter 614, Statutes of 2018)</b></p> <p><i>Insurance: Climate Change</i></p>	<p>This bill requires the Insurance Commissioner to convene a working group to identify, assess, and recommend risk transfer market mechanisms that, among other things, promote investment in natural infrastructure to reduce the risks of climate change related to catastrophic events, create incentives for investment in natural infrastructure to reduce risks to communities, and provide mitigation incentives for private investment in natural lands to lessen exposure and reduce climate risks to public safety, property, utilities, and infrastructure. The bill requires the policies recommended to address specified questions.</p>
<p><b>Assembly Bill 2061 (AB 2061) (Frazier, Chapter 580, Statutes of 2018)</b></p> <p><i>Near-zero-emission and Zero-emission Vehicles</i></p>	<p>Existing state and federal law sets specified limits on the total gross weight imposed on the highway by a vehicle with any group of two or more consecutive axles. Under existing federal law, the maximum gross vehicle weight of that vehicle may not exceed 82,000 pounds. AB 2061 authorizes a near-zero-emission vehicle or a zero-emission vehicle to exceed the weight limits on the power unit by up to 2,000 pounds.</p> <p>This bill supports the deployment of cleaner trucks as modeled in this 2022 Scoping Plan Update.</p>

The 2022 Scoping Plan Scenario identifies the need to accelerate AB32's 2030 target, from 40 percent to 48 percent below 1990 levels. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology. The Scoping Plan Scenario is summarized in Table 2-1 starting on page 72 of the Scoping Plan. It includes references to relevant statutes and Executive Orders, although it is not comprehensive of all existing new authorities for directing or supporting the actions described. Table 2-1 identifies actions related to a variety of sectors such as: smart growth and reductions in Vehicle Miles Traveled (VMT); light-duty vehicles (LDV) and zero-emission vehicles (ZEV); truck ZEVs; reduce fossil energy, emissions, and GHGs for aviation ocean-going vessels, port operations, freight and passenger rail, oil and gas extraction; and petroleum refining; improvements in electricity generation; electrical appliances in new and existing residential and commercial buildings; electrification and emission reductions across industries such as the for food products, construction equipment, chemicals and allied products, pulp and paper, stone/clay/glass/cement, other industrial manufacturing, and agriculture; retiring of combined heat and power facilities; low carbon fuels for

transportation, business, and industry; improvements in non-combustion methane emissions, and introduction of low GWP refrigerants.

Achieving the targets described in the 2022 Scoping Plan Update will require continued commitment to and successful implementation of existing policies and programs, and identification of new policy tools and technical solutions to go further, faster. California's Legislature and state agencies will continue to collaborate to achieve the state's climate, clean air, equity, and broader economic and environmental protection goals. It will be necessary to maintain and strengthen this collaborative effort, and to draw upon the assistance of the federal government, regional and local governments, tribes, communities, academic institutions, and the private sector to achieve the state's near-term and longer-term emission reduction goals and a more equitable future for all Californians. The Scoping Plan acknowledges that the path forward is not dependent on one agency, one state, or even one country. However, the State can lead by engaging Californians and demonstrating how actions at the state, regional, and local levels of governments, as well as action at community and individual levels, can contribute to addressing the challenge.

Aligning local jurisdiction action with state-level priorities to tackle climate change and the outcomes called for in the 2022 Scoping Plan Update is identified as critical to achieving the statutory targets for 2030 and 2045. The 2022 Scoping Plan Update discusses the role of local governments in meeting the State's GHG reductions goals. Local governments have the primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. They also make critical decisions on how and when to deploy transportation infrastructure, and can choose to support transit, walking, bicycling, and neighborhoods that do not force people into cars. Local governments also have the option to adopt building ordinances that exceed statewide building code requirements, and play a critical role in facilitating the rollout of ZEV infrastructure. As a result, local government decisions play a critical role in supporting state-level measures to contain the growth of GHG emissions associated with the transportation system and the built environment—the two largest GHG emissions sectors over which local governments have authority. The City has taken the initiative in combating climate change by developing programs and regulations such as the Green New Deal and Green Building Code.

## **THRESHOLDS**

As provided in Section IV.C, Greenhouse Gas Emissions, of the Draft EIR, the City considers whether the Project is consistent with the following plans:

- AB 32's Scoping Plan and Subsequent Updates;
- SCAG's 2020-2045 RTP/SCS consistent with SB 375; and
- City of Los Angeles' Green New Deal.

## **METHODOLOGY**

Appendix D, Local Actions, of the 2022 Scoping Plan Update includes "recommendations intended to build momentum for local government actions that align with the State's climate goals, with a focus

on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under the California Environmental Quality Act (CEQA).” (Page 4 of Appendix D.)

The State encourages local governments to adopt a CEQA-qualified CAP addressing the three priority areas (transportation electrification, VMT reduction, and building decarbonization). However, the State recognizes that almost 50% of jurisdictions do not have an adopted CAP, among other reasons because they are costly, requiring technical expertise, staffing, funding. Additionally, CAPs need to be monitored and updated as State targets change and new data is available. Jurisdictions that wish to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State’s climate goals in the absence of a CEQA-qualified CAP are advised to look to the three priority areas when developing local climate plans, measures, policies, and actions: (transportation electrification, VMT reduction, and building decarbonization). “By prioritizing climate action in these three priority areas, local governments can address the largest sources of GHGs within their jurisdiction.” (Page 9 of Appendix D.)

The State also recognizes in Appendix D, Local Actions, of the Scoping Plan that each community or local area has distinctive situations and local jurisdictions must balance the urgent need for housing<sup>5</sup> while demonstrating that a Project is in alignment with the State’s Climate Goals. The State calls for the climate crisis and the housing crisis to be confronted simultaneously. Jurisdictions should avoid creating targets that are impossible to meet as a basis to determine significance. Ultimately, targets that make it more difficult to achieve statewide goals by prohibiting or complicating projects that are needed to support the State’s climate goals, like infill development, low-income housing or solar arrays, are not consistent with the State’s goals. The State also recognizes the lead agencies’ discretion to develop evidence-based approaches for determining whether a project would have a potentially significant impact on GHG emissions.

## **ANALYSIS**

As discussed above, jurisdictions that want to take meaningful climate action (such as preparing a non-CEQA-qualified CAP or as individual measures) aligned with the State’s climate goals in the absence of a CEQA-qualified CAP should also look to the three priority areas (transportation electrification, VMT reduction, and building decarbonization). To assist local jurisdictions, the 2022 Scoping Plan Update presents a non-exhaustive list of impactful GHG reduction strategies that can be implemented by local governments within the three priority areas (Priority GHG Reduction Strategies for Local Government Climate Action Priority Areas).<sup>6</sup> A detailed assessment of goals, plans, policies implemented by the City which would support the GHG reduction strategies in the three priority areas is provided below. In addition, further details are provided regarding the correlation between these reduction strategies and applicable actions included in Table 2-1 (page 72) of the Scoping Plan (Actions for the Scoping Plan Scenario).

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<sup>5</sup> The State recognizes the need for 2.5 million housing units over the next eight years, with one million being affordable units. See page 20, Appendix D, 2022 Scoping Plan Update, November 2022

<sup>6</sup> Table 1 of Appendix D, 2022 Scoping Plan Update, November 2022.

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## Transportation Electrification

The priority GHG reduction strategies for local government climate action related to transportation electrification are discussed below and would support the Scoping Plan action to have 100 percent of all new passenger vehicles to be zero-emission by 2035 (see Table 2-1 of the Scoping Plan).

- **Convert local government fleets to zero-emission vehicles (ZEV)**

The CARB approved the Advanced Clean Cars II rule which codifies Executive Order N-79-20 and requires 100 percent of new cars and light trucks sold in California be zero-emission vehicles by 2035. The State has also adopted AB 2127, which requires the CEC to analyze and examine charging needs to support California's EVs in 2030. This report would help decision-makers allocate resources to install new EV chargers where they are needed most.

The City of LA Green New Deal (Sustainable City pLAN 2019) identifies a number of measures to reduce VMT and associated GHG emissions. Such measures that would support the local reduction strategy include converting all city fleet vehicles to zero emission where technically feasible by 2028. Starting in 2021, all vehicle procurement followed a "zero emission first" policy for City fleets. The Green New Deal also establishes a target to increase the percentage of zero emission vehicles to 25 percent by 2025, 80 percent by 2035 and 100 percent by 2050. In order to achieve this goal, the City would build 20 Fast Charging Plazas throughout the City. The City would also install 28,000 publicly available chargers by 2028 to encourage adoption of ZEVs.

This measure mainly applies to City fleets, and the City's goals of converting the municipal fleet to zero emissions and installation of EV chargers throughout the City would be consistent with the Scoping Plan goals of transitioning to EVs. In addition, the Project does not include any new development. Therefore, the Project would not conflict with the goal to convert local government fleets to ZEV.

- **Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed state building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans)**

The State has adopted AB 1236 and AB 970, which require cities to adopt streamline permitting procedures for EV charging stations. As a result, the City updated Section IX of the LAMC, which requires most new construction to designate 30 percent of new parking spaces as capable of supporting future electric vehicle supply equipment (EVSE). This would exceed the CALGreen 2022 requirements of 20 percent of new parking spaces as EV capable. The ordinance also requires new construction to install EVSE at 10 percent of total parking spaces. This requirement also exceeds the CALGreen 2022 requirements of installing EVSE for 25 percent of EV capable parking spaces which is approximately five percent of total parking spaces. The City has also implemented programs to increase the amount of EV charging on city streets, EV carshare, and incentive programs for apartments to be retrofitted with EV chargers.

The City's goals of installing EV chargers throughout the City would be consistent with the Scoping Plan goals of transitioning to EVs. In addition, the Project does not include any new development. Therefore, the Project would not conflict of transitioning to EVs.

### **VMT Reduction**

The priority GHG reduction strategies for local government climate action related to VMT reduction are discussed below and would support the Scoping Plan action to reduce VMT per capita 25 percent below 2019 levels by 2030 and 30 percent below 2019 levels by 2045.

- **Reduce or eliminate minimum parking standards in new developments**
- **Implement parking pricing or transportation demand management pricing strategies**

The City of Los Angeles Mobility Plan 2035 which is the Transportation Element of the City's General Plan contains measures and programs related to VMT reduction throughout the City. With regard to parking standards, the implementation of Mobility Plan Programs and AB 2097 reduce or eliminate parking requirements for certain types of developments near transit (within half a mile). These reduction strategies and TDM programs would serve to reduce minimum parking standards and reduce vehicle trips. The Project does not include any new development and would therefore not require any parking. As such, the Project would not conflict with the goals to reduce minimum parking standards.

- **Implement Complete Streets policies and investments, consistent with general plan circulation element requirements**

The City of Los Angeles Mobility Plan 2035 established a "Complete Streets" planning framework which resulted in the City of Los Angeles Complete Streets Design Guide in 2015, consistent with California's Complete Streets Act of 2008. A supplemental update to the Complete Streets Design Guide was adopted in 2020.

The Complete Streets Design Guide provides a number of measures to increase public access to electric shuttles, car sharing and walking. The Design Guide establishes guidelines for establishing on-street parking for car sharing. The City has also established BlueLA which is a car sharing network consisting of more than 100 electric vehicles located throughout the City. In addition, under the Green New Deal, the City would install 28,000 publicly available chargers by 2028 and introduce 135 new electric DASH buses.

This reduction strategy mainly applies to City traffic circulation. In addition, the Project does not include any new development. Therefore, the Project would not conflict with implementation of Complete Streets policies.

- **Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, etc.**

- **Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking**
- **Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing the allowable density of a neighborhood)**
- **Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements).**

These reduction strategies are supported through implementation of SB 375 which requires integration of planning processes for transportation, land-use and housing and generally encourages jobs/housing proximity, promote transit-oriented development (TOD), and encourages high-density residential/commercial development along transit corridors. To implement SB 375 and reduce GHG emissions by correlating land use and transportation planning, SCAG adopted the 2020–2045 RTP/SCS, also referred to as Connect SoCal. The 2020–2045 RTP/SCS’ “Core Vision” prioritizes the maintenance and management of the region’s transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets. Please refer below for additional discussion of consistency with the 2020-2045 RTP/SCS.

On a local level, the City has developed the Complete Streets Design Guide which provides a number of reduction strategies to increase public access to electric shuttles, car sharing and walking, continues to build out networks in the Mobility Plan for pedestrians, bicyclists, and transit users, has implemented an EV car sharing network, and is working towards increasing publicly available chargers, and introducing new electric DASH buses.

As discussed previously, the Project does not include any new development and would therefore not result in any on-going vehicle trips beyond the demolition of the existing building. Therefore, the Project would not conflict with these reduction strategies.

### **Building Decarbonization**

The priority GHG reduction strategies for local government climate action related to electrification are discussed below and would support the Scoping Plan actions regarding meeting increased demand for electrification without new fossil gas-fire resources and all electric appliances beginning in 2026 (residential) and 2029 (commercial) (see Table 2-1 of the Scoping Plan).

- **Adopt all-electric new construction reach codes for residential and commercial uses**

California’s transition away from fossil fuel–based energy sources will bring the project’s GHG emissions associated with building energy use down to zero as our electric supply becomes 100 percent carbon free. California has committed to achieving this goal by 2045 through SB 100, the 100 Percent Clean Energy Act of 2018. SB 100 strengthened the State’s Renewables Portfolio Standard (RPS) by requiring that 60 percent of all electricity provided to retail users in California come

from renewable sources by 2030 and that 100 percent come from carbon-free sources by 2045. The land use sector will benefit from RPS because the electricity used in buildings will be increasingly carbon-free, but implementation does not depend (directly, at least) on how buildings are designed and built.

The City has updated the LAMC with requirements for all new buildings, with some exceptions to be all-electric, which will reduce GHG emissions related to natural gas combustion. Space heating, water heating and cooking for non-restaurant uses would be required to be powered by electricity. In future years, the LADWP will be required to increase the amount of renewable energy in the power mix to comply with SB 100 requirements. The combination of the all-electric LAMC regulations and increasing availability of renewable energy will serve to reduce GHG emissions from sources traditionally powered by natural gas.

The Project does not include any new development. Therefore, the requirements for new buildings would not be applicable to the Project and the Project would not conflict with these regulations.

- **Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers)**

This reduction strategy would support the Scoping Plan action regarding electrification of appliances in existing residential buildings (see Table 2-1 of the Scoping Plan). The City and Los Angeles Department of Water and Power has established rebate programs to promote use of energy-efficient products and home upgrades. Under the LADWP's Consumer Rebate Program (CRP), residential customers would receive rebates for energy-efficient upgrades such as Cool Roofs, Energy Star Windows, HVAC upgrades, pool pumps and insulation upgrades. Such upgrades would serve to reduce wasteful energy and water usage and associated GHG emissions.

The Project would not involve the retrofit of existing buildings and therefore, this strategy would not be applicable to the Project. However, the Project would not conflict with policies to implement energy efficiency retrofits.