



BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

California Environmental Quality Act

Appendix C

Guidance for GHG Reduction Strategies

These guidelines are nonbinding recommendations, intended to assist lead agencies with navigating the CEQA process. They may be updated as needed in the future, and any updates will likewise be nonbinding and advisory.

TABLE OF CONTENTS

Section	Page
Table of Contents	C-i
List of Abbreviations	C-ii
1 Introduction.....	C-1
1.1 thresholds of significance for plans	C-3
1.2 Streamlining Under section 15183.5.....	C-3
1.3 Sub-section (b)(1)(a) and (c): Community-wide GHG Inventories and Forecasts.....	C-4
1.4 sub-section (b)(1)(b): GHG Emission Reduction Targets	C-10
1.5 sub-section (b)(1)(d): The Mitigation Strategy.....	C-11
1.6 sub-section (b)(1)(e): Implementation and Monitoring Strategy.....	C-17
1.7 sub-section (b)(1)(f): adoption in a public process after environmental review	C-17
1.8 Updating existing Plans to Align With this guidance.....	C-18
1.9 Early Consultation with the Air District	C-19

LIST OF ABBREVIATIONS

ABAG	Association of Bay Area Government's
BAU	business-as-usual
CARB	California Air Resources Board
CCA	community choice aggregation energy program
EVs	electric vehicles
F-gases	fluorinated gases
GHG	greenhouse gas
GWP	global warming potential
IPCC	Intergovernmental Panel on Climate Change
M-GHG-1	mitigation measure for GHG offsets
MT	metric tons
OPR	Office of Planning and Research
RHNA	Regional Housing Needs Assessment
RTAC	Regional Targets Advisory Committee
VMT	vehicle miles traveled



1 INTRODUCTION

This appendix is designed to assist users in developing community-scale greenhouse gas (GHG) reduction strategies, or plans, that are aligned with the State CEQA Guidelines Section 15183.5(b)(1) and (2) (see box below) that allow for CEQA streamlining for new projects and that meet the Air District’s plan-level threshold of significance for climate impacts. This additional guidance has been developed by the Air District to support local governments in developing robust GHG reduction strategies that align with State targets and guidance and to support streamlining under CEQA. In drafting this guidance, the Air District has drawn from established methodologies and practices and from its own experience reviewing and commenting on local strategies and plans for reducing GHG emissions. This guidance should be interpreted as recommended approaches rather than a formal protocol. This guidance will be updated as new tools, methodologies, and approaches are developed and refined. See Chapter 3 for a wider discussion on the Air District’s Thresholds of Significance.

The Governor’s Office of Planning and Research (OPR) develops resources for understanding and implementing CEQA. In 2010, OPR added the text in the box below to the State CEQA Guidelines, providing opportunities for development projects to streamline CEQA review for GHG emissions. This document refers to “Plans for the Reduction of Greenhouse Gas Emissions” as listed in the State CEQA Guidelines and the box below as “plan” for simplicity’s sake, which is consistent with the focus of Section 15183.5(a) and (b). Examples of plans that might fall under the term “plan” include climate action plans, sustainability plans, and general plans that include a robust strategy for reducing GHGs.

*State Office of Planning and Research CEQA Guidance on GHG Reduction Strategies**§15183.5. Tiering and Streamlining the Analysis of Greenhouse Gas Emissions.*

(a) Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).

(b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

(1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:

(A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

(B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;

(C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;

(D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;

(E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;

(F) Be adopted in a public process following environmental review

(2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

CEQA Guidelines Section 15183.5(b)(1) and (2) lays out criteria for what a “plan for the reduction of greenhouse gases” must do to provide project-level streamlining benefits. Because OPR’s guidance under Section 15183.5 is very high level, there is little specific direction on what should be included in a local GHG reduction plan or how to ensure that plan will achieve its GHG reduction target.

A common industry term for a plan that supports streamlining under Section 15183.5 is a “qualified climate action plan.” The word “qualified” is not actually mentioned in Section 15183.5; this term was developed by planners and practitioners in recent years to refer to a climate action plan or similar GHG reduction strategy that meets the criteria spelled out in the State’s CEQA Guidelines. It is ultimately up to the lead agency to make the assertion that a local plan is “qualified” (i.e., meets the above criteria) and to support that assertion with substantial evidence.

The Air District has a long history of assisting local government staff in developing local plans to reduce GHG emissions and encourages streamlining from a local plan if it meets the criteria identified in Section 15183.5 as well as the additional guidance below. This additional guidance has been developed by the Air District to provide further support to local governments in developing robust GHG reduction strategies that align with State targets and guidance and to potentially support streamlining under CEQA.

This guidance is organized around Section 15183.5(a) and the (b)(1) Plan Elements that should be included in a plan to reduce greenhouse gas emissions in order to be considered for project streamlining benefits, as listed in the box above.

1.1 THRESHOLDS OF SIGNIFICANCE FOR PLANS

On April 20, 2022, the Air District Board of Directors adopted an updated threshold of significance for climate impacts for long-term communitywide planning documents (e.g., general plans, long-range development plans, climate action plans). To demonstrate a less-than-significant climate impact, the plan must demonstrate that the community will reduce GHG emissions at least 40 percent below 1990 levels by 2030 and support the State’s goal of achieving carbon neutrality by 2045, or meet the requirements for a GHG reduction strategy in Section 15183.5(b). A more detailed discussion of what it means to support the goal of carbon neutrality is available in sections 1.4 and 1.5 of this document. The term “community” as used in this document refers to a geographic area that aligns with a town, city or county, and the people/activities and municipal operations within that area.

1.2 STREAMLINING UNDER SECTION 15183.5

Streamlining is a way for lead agencies to reduce project-level environmental review by conducting a thorough evaluation at the programmatic level. CEQA Guidelines Section 15183.5(b) authorizes streamlined review of a project’s climate impacts if certain requirements are met (see also CEQA Guidelines §§ 15064(h)(3), 15064.4). The project must comply with or be consistent with a GHG reduction plan that meets the requirements of Section 15183.5(b)(1). Lead agencies (not the Air District) determine that a local GHG reduction plan meets the CEQA Guidelines’ definition of a qualified GHG reduction plan under Section 15183.5(b)(1). They also determine or assert that a development project is consistent with that plan for the purposes of CEQA streamlining (streamlining off the environmental document for the GHG reduction plan). These determinations must be

supported by substantial evidence. The Air District does not make either of these determinations, but it may opine on these points in a comment letter based on review of the plan or project as a technical expert.

Section 15183.5(b) specifies several plan elements that must be included in a GHG reduction plan for it to provide the basis for streamlined review. It also requires that a GHG reduction plan be adopted in a public process “following certification of an EIR or adoption of an environmental document.” Note that the CEQA Guidelines define “environmental documents” to include “initial studies, negative declarations, draft and final EIRs, documents prepared as substitutes for EIRs and negative declarations under a program certified pursuant to Public Resources Code Section 21080.5, and documents prepared under NEPA and used by a state or local agency in the place of an initial study, negative declaration, or an EIR” (CEQA Guidelines § 15361). Further discussion on this topic is included in section 1.7 below.

Section 15183.5(b)(2) explains what is required to determine the project’s consistency with the relevant GHG reduction plan. It states that, “An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project.” According to this Section, all relevant measures in the plan must be incorporated into the CEQA project, whether or not explicitly required by the plan. If the plan is being implemented according to its own implementation strategy and the project is incorporating all relevant measures from the plan, then the project may be able to streamline off the environmental document prepared for the plan. In cases where a measure is included in the plan but its implementation date exceeds the date of a project (e.g., the plan calls for the adoption of a building code but a project is developed prior to the building code being adopted), the project does not have to incorporate that measure, as long as the plan accounted for that project in its quantified progress toward the target.

1.3 SUB-SECTION (b)(1)(A) AND (C): COMMUNITY-WIDE GHG INVENTORIES AND FORECASTS

Per Section 15183.5(b)(1)(A) and (C), the first and third Plan Elements relate to developing a GHG inventory and emissions forecast for a plan: “Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area” (inventory) and “Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area” (forecast). Local governments should develop their GHG inventory using “[The U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions](#)” for community-wide emissions, per recommendations from the California Air Resources Board (CARB)¹ and OPR’s [General Plan Guidelines Update](#). Local governments can use the ClearPath tool to support inventories and climate action planning (<https://californiaseec.org/seec-clearpath/>).²

¹ CARB recommended the use of “The U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions” in its 2017 Climate Change Scoping Plan. CARB did not provide different guidance in its 2022 Scoping Plan Update, which focuses primarily on mitigation actions for local governments.

² ICLEI-Local Governments for Sustainability USA (ICLEI) announced a new initiative to expand the U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions (USCP). ICLEI and stakeholders will create two new methods — the USCP Plus and USCP Dash — for local and regional governments to view and manage emissions and increase action. (<https://icleiusa.org/modernizing-the-uscp/>)

The Air District recommends specific approaches and assumptions related to the scoping and emissions calculation steps laid out in the U.S. Community Protocol, as discussed below. Based on research and consultation with practitioners, Air District staff has identified the following issues as important for local GHG inventories and forecasts that provide a basis for strong climate action plans.

Scoping Process Considerations

While the GHG inventory includes all relevant emissions within the defined geographic area for the plan, there may be large sources of emissions over which the local government may not have local control (CARB 2017:100; OPR 2017:228). Large sources of emissions within a community over which the local government has little or no control may include refineries, power plants, cement plants, etc.

Including these dominant sources in the community inventory can skew the inventory results in such a way that other important sources are minimized and not truly reflective of the community's contributions to GHG emissions. This can be problematic when developing GHG reduction targets and prioritizing GHG reduction measures. If a single large source over which the local government has no control or influence dominates the inventory, the source could be excluded from the inventory for the purposes of target-setting and developing the GHG reduction strategy. In some such situations, plans have provided two inventories – one with the dominant source included to demonstrate full GHG accounting for informational purposes, and one without the dominant source for the practical purposes of setting a realistic target and mitigation strategy designed to meet the target. This may not be practical for all situations, as some local governments may lack data and information on these large sources.

Emissions Calculations Considerations

Electricity emission factors

Different emission factors for determining the GHG content of the electricity used by the community can yield dramatically different results in a GHG inventory. Most (but not all) communities in the Bay Area fall under the power supply jurisdiction of a community choice aggregation energy program (CCA) or a municipal utility.³ In these cases, the local government should obtain the respective electricity emission factors from the appropriate electricity provider. Local governments will also need this information from PG&E, since customers within the jurisdiction of the CCA may still choose to opt out and receive power from PG&E.⁴ The electricity emission factor should reflect as much of the local generation mix as possible. Using eGRID or other sources that provide higher-level emissions factors – state, multi-state or national level – could decrease the accuracy of the community GHG inventory and may lead to developing a GHG reduction strategy that is not as effective as it could be if more local emission factors were used. One exception is using eGRID coefficients for direct access electricity use if local emission factors are not available.⁵

Annual vs. hourly emissions factors for electricity design elements

³ For an interactive map of Community Choice Aggregation programs in California, see The Climate Center Clean Power Exchange, <https://cleanpowerexchange.org/california-community-choice/>

⁴ To request community-wide electricity data from PG&E, send request to GHGDataRequests@pge.com

⁵ Direct Access (DA) service is retail electric service where customers purchase electricity from a competitive provider called an Electric Service Provider (ESP), instead of from a regulated electric utility.

The U.S. Community Protocol for GHG Inventories currently calls for using yearly averages, even though the carbon content of electricity on the grid can vary over the course of a day. Recently there has been discussion about gaining accuracy by using hourly emission factors for electricity. While this approach would improve the accuracy of the inventory, obtaining this detailed information could require a level of technical knowledge and additional effort that might be difficult for some local governments to meet. The Air District will track developments in this area and will update this guidance as necessary. For now, using annual emission factors for electricity is adequate.

The 15/15 Rule

The State of California has a privacy standard for utilities that helps ensure customer anonymity when energy data is released to third parties without customer consent. Referred to as “the 15/15 Rule,” this privacy standard requires that aggregated data – such as that requested by local governments when developing community GHG inventories – include a minimum of 15 customers and no single customer can account for more than 15% of total usage. This constraint often results in data being provided to local governments that is so highly aggregated it creates challenges for providing meaningful information for GHG inventories, or “blacking out” large sections of data in the energy use report. If the 15/15 Rule is creating “black boxes” on the standardized reports, a local government can submit a custom data request through PG&E’s Energy Data Request Portal (pge-energydatarequest.com), though there will still be some data privacy and aggregation rules applied. Additionally, if a local government is aware of which facility’s data is triggering the 15/15 Rule, they could request data to be shared directly from those facilities/organizations. For facilities that are large enough to fall under CARB’s Mandatory GHG Reporting Rule (25,000 metric tons per year), data is available at <https://ww2.arb.ca.gov/mrr-data>.

Global warming potential values and time horizons

The Intergovernmental Panel on Climate Change (IPCC) periodically releases “Assessment Reports” reflecting the latest climate science. These reports include lists of greenhouse gases and their global warming potentials (GWPs) – their potential to absorb infrared radiation and heat the atmosphere – relative to CO₂. Using the latest science to report emissions will likely result in better policy decisions, therefore it is recommended that the GWP values from the IPCC’s 5th Assessment Report (AR5, IPCC 2013) or 6th Assessment Report (AR6, IPCC 2021) are used. The GWP values in AR5 changed substantially from those in AR4, partly because important “carbon-climate feedback effects” were included. While the GWP values were also updated in AR6, the changes between the values in AR5 and AR6 for GHGs included in community inventories are not substantial. The Air District recognizes that CARB still uses 2007 IPCC AR4 GWPs for the 2000–2019 emission inventory. However, it is the Air District’s assertion that using GWPs that reflect the latest science is more important than reflecting consistency with CARB’s methodology.⁶

An added consideration when applying GWPs is the time horizon for which global warming is considered. In most cases, GHG emissions inventories are reported using 100-year GWP time horizons since historically the focus has been on reducing carbon dioxide, which is a long-lived climate pollutant. International best practice recommends using the 100-year GWP time horizon, and the State of California currently uses it for its inventory and 2022 Scoping Plan Update. As plans begin to acknowledge and include more strategies

⁶ See “Greenhouse Gas Emission Estimates and Draft Forecasts: Update and Work In Progress,” BAAQMD 2017, online report.

to reduce short-lived climate pollutants like methane and fluorinated gases (F-gases), a 20-year GWP time horizon may be more appropriate, especially when comparing the benefits of different mitigation measures across both short-lived and long-lived climate pollutants. To reduce global warming as soon as possible, measures with meaningful short-term benefits are necessary while we work to develop longer-term solutions. For local climate action plans, the Air District views the 100-year time horizon as adequate, while recognizing that some local governments may wish to use the shorter 20-year timeframe. The Air District encourages each local government to choose which time horizon (100-year or 20-year) is most suitable for their own plan and apply it consistently throughout (including inventory and emission reduction calculations), including a justification for their decision in publicly available documents.

For more background information on GWPs and time horizons, see "[Greenhouse Gas Emission Estimates and Draft Forecasts: Update and Work in Progress](#)," (Air District, 2017)

Trip-based approach for determining VMT

There are two approaches to determining vehicle miles traveled (VMT) for the purposes of developing a GHG inventory. Historically, inventories took a geographic approach, accounting for the total VMT occurring within the geographic boundaries of the community. This approach does not take into account the purposes of trips, the local land use activity that influences the trip or the ability (or lack thereof) of local policies to impact VMT. Another approach is to only account for the VMT from trips that begin and/or end within the community. This "trip origin/destination" approach captures the VMT that can most likely be influenced by local land use decisions and policies.

The 2017 Scoping Plan suggests that transportation emissions in the inventory follow this trip origin/destination approach. (We refer to inventory-related guidance from the 2017 Scoping Plan, which provides detailed information on how local governments should conduct community GHG inventories. The 2022 Scoping Plan Update does not include specific direction on local GHG inventories, focusing more on higher level guidance on how local plans can align with the carbon neutrality goal.) The trip origin/destination methodology is also suggested by CARB's Regional Targets Advisory Committee (RTAC), established as part of the implementation of SB 375 (Sustainable Communities and Climate Protection Act of 2008). GHG emission inventories should use the methodology established by RTAC for quantifying VMT and subsequent emissions that are attributable to the community. To facilitate this approach, the Air District has collaborated with MTC to produce the [VMT Data Portal](#), which provides local data specifically for the purposes of developing local GHG emissions inventories and forecasts, which follows the trip origin/destination methodology. The VMT Data Portal accounts for all passenger and light-duty VMT consistently across jurisdictions without double-counting.

Emission forecast years

After developing the baseline GHG inventory, the plan should include an emission forecast for the years 2030 and 2045 at a minimum. It may include additional forecast years which align with the local government's relevant planning documents. For example, if a General Plan extends only to 2040, the climate action plan should include a target milestone for 2040, in addition to 2045.

Federal and state policies and how to include in the emissions forecast

Emissions forecasts are projected using a business-as-usual (BAU) scenario in which GHG emissions continue based on the community's current activities and grow or decrease into the future based on the chosen growth forecast data (changes to demographics, job growth, housing units consistent with Regional Housing Needs Assessment (RHNA) allocations, etc.) and the assumption that no new GHG reduction regulations or policies are implemented in the future at the local, state or federal levels. The growth forecast data should include data and/or growth factors regarding the community's future growth patterns that have been published through either the local government's adopted General Plan, Association of Bay Area Government's (ABAG) Growth Projections for the specific jurisdiction, or a commensurate published document.

There are two different ways that local emission reductions resulting from federal and state policies can be incorporated into the plan. They can either be incorporated into an "adjusted forecast," or into the GHG mitigation strategy/measures. The adjusted forecast starts with the BAU forecast, and then applies local emission reductions resulting from federal and state policies. Examples of such policies include the statewide Renewables Portfolio Standard and the Advanced Clean Cars program, which truly are implemented at the statewide level without specific roles at the local level. It is important to only deduct emission reductions from federal and state policies once – that is, if reductions are taken in the adjusted forecast to account for the Renewables Portfolio Standard, they cannot also be deducted as a GHG reduction measure in the plan (e.g., as a clean energy measure due to lower carbon content of electricity provided by the CCA, unless the CCA goes above and beyond the requirements of the RPS). Other state policies such as SB 375 have a distinct role for local implementation and may therefore be more appropriately included as local land-use measures versus being incorporated into the adjusted forecast. However, if VMT estimates from the VMT Data Portal are being used, VMT impacts from SB 375 are already being taken into account in the Portal outputs (since the VMT Data Portal reflects implementation of Plan Bay Area). It is up to the local government to decide how to account for emission reductions, whether in the adjusted forecast or the local GHG mitigation strategy.

State and federal policies that can be applied to the adjusted forecast include:

- ▶ State Policies
 - SB 100 (Renewables Portfolio Standard)
 - California's Building Energy Efficiency Standards (Title 24, Part 6)
 - Advanced Clean Car Standards
 - Truck and Bus Regulation
- ▶ Federal Policies
 - Fuel Efficiency Standards for Medium- and Heavy-Duty Vehicles
 - EPA Off-Road Compression-Ignition Engine Standards

A Performance-based Approach to Carbon Neutrality

While it has been traditional practice for GHG reduction plans to use the quantitative approach outlined above to establish baseline conditions and track progress toward achieving climate protection goals, there is increasing interest among local practitioners to pursue a more performance-based approach. Establishing quantitative

GHG inventories, forecasts and mitigation strategies and tracking and reporting on the quantitative progress being made requires a great deal of technical expertise and local government resources. Many local agencies have expressed a desire to redirect those resources toward implementation of critical policies and programs to reduce emissions and make progress toward goals. The statewide goal of achieving carbon neutrality lends itself to a performance-based approach to measuring progress. That is, if the ultimate goal is net zero emissions, then developing policies, standards, and programs aimed at eliminating GHG emissions altogether can provide a clearer pathway than measuring incremental progress of GHG tons reduced year after year.

A growing number of local government practitioners are focused on demonstrating progress toward carbon neutrality by tracking non-GHG performance metrics, such as the number of zero emission buildings, number of electric vehicles (EVs), percent mode shift away from internal combustion vehicles, etc. They are developing policies and best practices targeting these metrics that will lead to carbon neutrality. Communicating progress toward carbon neutrality in terms of performance metrics often resonates more directly with decision-makers and the public than speaking in terms of tons of GHG emissions reduced. Section 1.5 below provides additional discussion of the utility/value of this alternative approach.

Transparency Considerations

Any variation from the methodologies used in the U.S. Community Protocol are up to the discretion of the local government and should be clearly explained either in the text of the plan or an attached appendix that is available for public review. In addition, methodologies, emission factors, assumptions, and other important data should be included in publicly available plan documents.

Additional sources of data and information for GHG inventories

2017 Climate Change Scoping Plan (<https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2017-scoping-plan-documents>)

Governor's Office of Planning and Research (OPR) General Plan Guidelines Update (https://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf)

"The U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions" (<https://icleiusa.org/us-community-protocol/>)

The Climate Center Clean Power Exchange, <https://cleanpowerexchange.org/california-community-choice/>

Association of Bay Area Government's (ABAG) Growth Projections (<https://abag.ca.gov/our-work/land-use/forecasts-projections>)

IPCC Assessment Reports, (<https://www.ipcc.ch/reports/>)

Greenhouse Gas Emission Estimates and Draft Forecasts: Update and Work in Progress, (https://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/ghg_emissions_and_forecasts_draft.pdf?la=en)

BAAQMD/MTC VMT Data Portal, (<http://capvmt.us-west-2.elasticbeanstalk.com/about>)

1.4 SUB-SECTION (b)(1)(B): GHG EMISSION REDUCTION TARGETS

The second Plan Element as listed in CEQA Guidelines Section 15183.5(b)(1)(B) is: *"Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable."* The plan must include GHG emissions reduction targets that demonstrate consistency with statewide targets. Current statewide targets included in the 2017 Scoping Plan and 2022 Scoping Plan Update include:

- ▶ reducing GHG emissions by at least 40 percent below 1990 levels by 2030 (SB 32); and
- ▶ achieving carbon neutrality no later than 2045 (AB 1279⁷ and Executive Order B-55-18).

The plan should demonstrate, through aggressive GHG reduction measures and a robust implementation and monitoring strategy, how the community will meet the 2030 target for its overall community GHG emissions. The plan should also demonstrate that it will achieve as ambitious emission reductions as technologically and financially feasible by 2045, minimizing the residual amount of emissions needed to close the gap to carbon neutrality. The plan can demonstrate consistency with the statewide carbon neutrality target by minimizing residual emissions to the greatest extent possible as a result of including all applicable feasible measures, and by including a robust implementation strategy that maximizes the likelihood that the full GHG reduction strategy will be implemented. The plan must include a vigorous monitoring program that will continue to adjust and fine-tune the plan to ensure that it maximizes GHG reductions over time. The monitoring program should include adjusting the GHG reduction strategy as additional technologies become feasible and to account for emerging statewide policies and programs.

Target for plan to reduce GHG emissions by 2030

The plan should adopt a GHG reduction target for 2030 that is at least as stringent as the statewide target of at least 40 percent below 1990 levels by 2030. Recent climate action plans show that local governments have consistently been able to demonstrate how the 2030 target will be met.

Both the 2017 Scoping Plan and the 2022 Scoping Plan Update rely on emission reductions from all statewide emissions sectors (and sinks which remove carbon from the atmosphere), several of which are not under the control of local governments (e.g., interstate vehicle travel, large industrial operations, air and marine transport) to meet the statewide 2030 GHG reduction target. When translating the percent reduction in 2030 to actual tons of GHGs reduced, local governments should apply the percent reduction to local emissions sectors and sinks within the control or influence of local governments, which may exclude statewide emissions sectors and sinks that cannot be affected through a local GHG reduction plan (CARB 2017:100). It is up to the local jurisdiction to determine which emission sources are excluded and to explain why those sources are out of their control.

Consistency with the carbon neutrality target in a plan

Assembly Bill 1279 (AB 1279) requires the state to achieve carbon neutrality by 2045, and to accomplish that in part by reducing direct GHG emissions by 85% below 1990 levels. Either way one articulates this goal, this will be a challenge for local governments to meet. How does a community achieve carbon

⁷ AB 1279 requires the state to achieve carbon neutrality by 2045, and to accomplish that in part by reducing direct GHG emissions by 85% below 1990 levels.

neutrality? Being carbon neutral would require a community to produce zero net carbon emissions, so that the emissions it produces equal the emissions it removes from the atmosphere. A community could do this by eliminating 100% of its carbon emissions, or by significantly reducing its carbon emissions to the greatest extent feasible and enhancing carbon sequestration in its geographic boundaries, and then utilizing a minimal amount of verified carbon offsets to close the remaining emissions gap. For more information on offsets, see section 1.5 of this document.

Communities should aim for carbon neutrality and minimize their emissions gap as much as possible with robust, enforceable GHG reduction strategies and local sequestration. Different communities have different challenges and opportunities in pursuing this target. For example, some communities may have open natural spaces or agricultural lands which could be used for sequestration.⁸ Other communities may not have abundant sequestration opportunities and reducing GHG emissions to zero may not be currently feasible. And yet, we know from scientific reports released by the IPCC that we must achieve these GHG reduction goals in order to prevent cataclysmic climate change.

The 2022 Scoping Plan Update Appendix D: Local Actions includes broad guidance to local governments on important approaches to implement to support the State's carbon neutrality goal, rather than defining the specific role local communities must play in helping the State meet its carbon neutrality target. The best and most defensible way for a plan to demonstrate consistency with state targets is to show, through quantification, how implementation of the plan's GHG reduction measures will enable the community to meet the 40+ percent reduction by 2030, and to demonstrate that it will achieve as ambitious emission reductions as technologically and financially feasible by 2045, minimizing the residual amount of emissions needed to close the gap to carbon neutrality. This can be demonstrated by including a description of the decision-making process for how technological and financial impacts were taken into account.

To do this, plans should aggressively pursue GHG reductions with a preponderance of enforceable, mandatory measures that quantitatively get the community as close to carbon neutrality as possible by 2045 and include a robust implementation and monitoring strategy (see Section 1.6 below) that shows how the remaining emissions gap will reduce over time. Re-evaluation and adjusting/strengthening the GHG reduction strategy will be critical as advances in technologies and innovations, and additional State policies and actions, make statewide carbon neutrality achievable. While use of offsets is not necessary to demonstrate consistency with the 2045 target, if a local jurisdiction does employ them, they should consider the criteria discussed in section 1.5 of this document.

1.5 SUB-SECTION (b)(1)(D): THE MITIGATION STRATEGY

The fourth Plan Element as described in Section 15183.5(b)(1)(D) is: *"Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level."* The ability of the plan to meet its stated GHG emission reduction targets is reflected in the plan's mitigation strategy. The stronger

⁸ Carbon farming tools COMET Planner and COMET Farm, developed by Colorado State University, the Natural Resources Conservation Service, the Carbon Cycle Institute and the Marin Carbon Project, help quantify the GHG reduction benefits of different farming practices. (<https://www.carboncycle.org/carbon-farm-planning/>)

the mitigation strategy, the more likely the plan will be to achieve its goals, and the stronger the position the plan will be in to support CEQA streamlining for future development projects.

There are as many approaches to climate action plans as there are local governments. The specific approach a local government takes to compiling its GHG reduction plan depends upon local resources, challenges, and opportunities. Many local governments are also broadening the scope of their plans to address related important issues, such as multiple co-benefits of reducing GHG emissions, environmental and social justice and equity, climate adaptation and resilience, public health, etc. There is an increasing acknowledgement that addressing social and economic inequities is integral to meaningful climate action. Solutions developed in partnership with communities – particularly those communities most overburdened by pollution and other impacts – can result in more equitable and effective actions and also increase support for and implementation of the plan’s mitigation strategy. Many local governments are developing their plans with robust community input and strategic partnerships to inform and shape what this would look like and increase community support for their strategies.

Across the variety of plans, the elements that make for a strong mitigation strategy include:

- ▶ a preponderance of mandatory vs. voluntary measures, particularly for measures addressing new development;
- ▶ measures that address the largest GHG emission sources;
- ▶ a focus on quality (measures likely to reduce large amounts of emissions) over quantity (many measures with small impact);
- ▶ a minimal reliance on offsets, if any, with preference for those that achieve local benefits;
- ▶ transparency in methods of quantification (assumptions and their bases, emission factors, etc.);
- ▶ and a strong implementation and monitoring strategy.

The mitigation strategy should demonstrate how the community will meet the 2030 target for its overall community GHG emissions and achieve the most feasibly ambitious emissions reductions by 2045 to get the community as close to carbon neutrality by 2045 as possible.

Mandatory vs voluntary measures

A mandatory measure is one that either commits the local government to taking action or requires action on the part of the private sector (including the residential sector) that is binding and enforceable. Mandatory measures use terms like, “shall” or “will,” whereas voluntary measures use terms like, “explore,” “consider,” or “promote.”

A measure that commits the local government to taking action could be a stated policy or investment, such as, “The City will meet LEED platinum standards in all new municipal construction,” or, “The City shall install EV charging stations at all public parking lots.” Measures framed in this manner are considered mandatory measures, as they are definitively stating that the local government will/shall take a binding action.

A measure that requires an action on the part of a private company or community member/household might be a policy to be enacted by the local government – “The County shall adopt an ordinance banning

the use of natural gas in new development,” or “The City will change its current building code requiring minimum parking spaces to imposing maximum parking spaces.”

Mandatory measures have higher levels of certainty that they will be implemented, and thus increased assurance that the estimated level of GHG reduction will be achieved. It is very difficult to estimate emission reductions with any degree of certainty for voluntary measures, as the timing, thoroughness, and overall efficacy of their implementation is less certain.

In addition to mandatory measures, incentive-based measures can also yield strong results and may be more appropriate for the existing built environment. While voluntary in nature, incentives such as rebates, cost reductions, grants or fee waivers can provide strong motivation for behavior change or technology uptake, and can be more likely to achieve their intended result than purely voluntary measures.

Measures address the largest GHG emission sources and focus on quality

There is no magic number or percentage of mandatory measures required in a plan to support streamlining under CEQA. Again, it is the ability of the mitigation strategy to clearly meet the GHG reduction target(s) that is considered in the plan’s ability to support streamlining. This is where addressing the largest sources of GHG emissions and focusing on quality (e.g., achieve significant emissions reductions) over quantity can be helpful. For example, a plan that ignores, or lightly treats, transportation emissions may have a hard time making the case that it is consistent with the State’s carbon neutrality target. This is reinforced by CARB’s 2022 Scoping Plan Update Appendix D Local Actions, which highlights a short list of suggested actions prioritizing GHG reductions in the areas of building decarbonization, VMT reduction and support for EVs,

The Air District recommends that the four design elements from the project-level Climate Impact Threshold be included in the GHG reduction plan as important measures to address GHG emissions from new development and, to the extent appropriate, existing development, as these specific measures have been directly connected to the State’s ability to achieve its 2030 and 2045 GHG reduction targets (see the Thresholds Justification Report, Appendix B). In addition, these four design elements closely track with the prioritized measures highlighted in Appendix D to the 2022 Scoping Plan Update. These design elements are:

1. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
2. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

[Appendix F to the State CEQA Guidelines, which summarizes the goal of this measure as the wise and efficient use of energy, achieved through: (1) decreasing overall per capita energy consumption, (2) decreasing reliance on fossil fuels, and (3) increasing reliance on renewable energy sources. It is important to include measures in the Plan that achieve these objectives.]

3. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the Draft 2022 Scoping Plan Update (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor’s Office of Planning and Research’s Technical Advisory on Evaluating Transportation Impacts in CEQA:

- i. Residential projects: 15 percent below the existing VMT per capita
- ii. Office projects: 15 percent below the existing VMT per employee
- iii. Retail projects: no net increase in existing VMT

[OPR's Technical Advisory provides guidance on how lead agencies may screen out VMT impacts for select project types using project size, maps, transit availability, and provision of affordable housing. It should also be noted that while this VMT approach is appropriate for determining significance for projects, it should not be used for the community GHG inventory – the SB375 trip-based approach should be used for inventories.]

4. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

Because of the importance of these four measures in supporting the statewide GHG reduction targets, in addition to including these measures in the plan, Air District staff strongly recommend that the implementation strategy for the plan call for their adoption/implementation as soon as possible.

Justification for voluntary measures

While it is critically important to include a preponderance of mandatory measures in the plan, it may not be realistic for 100% of the plan's measures to be mandatory. As discussed above, incentive-based voluntary measures are more likely to achieve the intended emission reductions than other types of voluntary measures. They might include adding funding to existing utility-sponsored incentive programs promoting energy efficiency or distributed renewable energy upgrades to commercial or residential buildings. Non-financial incentives might include permit relief or front-of-the-line privileges for building projects that meet voluntary green building standards. These types of benefits can increase the likelihood of uptake and help achieve the estimated amount of GHG reductions.

Substantiation for all voluntary measures – incentivized and non-incentivized – must be robust and include all assumptions about participation rates and outcomes. Substantiation and quantification of voluntary measures should include a discussion of how similar measures have been implemented elsewhere and be based on those outcomes. According to OPR's General Plan Guidelines,

"Although mandatory measures are preferred to establish the substantial evidence that a particular emissions reduction measure will have the stated benefit, there are some examples of incentive-based measures that could be considered mitigation. One example is proposed to expand an energy efficiency program that has been in place several years and has a proven emissions reduction track record. These types of measures can be included in reductions towards a target, as long as assumptions reflect the proven ability for that program to reduce emissions. In other words, there should be substantial evidence to support the calculations for the measure." (OPR General Plan Guidelines Chapter 8)

All evidence and substantiation for the estimated GHG reductions resulting from implementation of voluntary measures (as well as mandatory measures) should be included in publicly available documents.

Measures to ensure state mandates are met

Many local plans include measures in response to state mandates imposed on local governments. For example, SB 1383 requires that localities reduce organic waste disposal 75% by 2025. It is not enough to

simply include this target as a measure in the plan, assuming it will be met, with the associated GHG reductions. Meaning, if a community's GHG emissions related to organic waste are currently 100,000 metric tons (MT) per year, a measure in the plan stating that, due to the statewide SB 1383 organics diversion mandate, the local government will necessarily meet the mandate and that will result in a GHG reduction of 75,000 MT is not adequate. The measure should include a discussion of what policies, programs, and actions the local government will take to ensure that mandate is met, and the estimates of GHG emissions and other indicators should be supported with evidence.

Use of offsets

The Air District strongly recommends that GHG reduction targets be achieved from direct GHG emission reductions and sequestration occurring within the community to the greatest extent feasible. Specifically, offsets from GHG emission reductions taking place outside the community should be minimized, if used at all, in the mitigation strategy to achieve the 2030 target. Numerous local adopted plans demonstrate that the 2030 target can be achieved without use of offsets. They may be included to address the emissions gap remaining in 2045 after committing to all other feasible emission reduction and sequestration opportunities under the local government purview to achieve carbon neutrality by 2045. If some residual emissions remain for 2045, the plan should transparently and clearly explain what the sources of those emissions are and how they will be addressed moving forward. If the plan does include offsets, it must include a formal process and objective standards to ensure the offsets actually result in GHG emission reductions per case law as described below.

Local mitigations to reduce emissions and sequester carbon can accrue local co-benefits, such as improved air quality. Purchasing offsets (or credits that represent reductions or removals of GHGs by an activity) from outside the community would contribute to efforts to avoid cataclysmic climate change, so long as they meet rigorous standards as described below but would likely not bring co-benefits that would improve quality of life for members of the community. Furthermore, evolving case law has clarified what constitutes an adequate offset, which in turn may limit the type and quantity available for use in GHG reduction plans.

Golden Door Properties vs. County of San Diego (2020) 50 Cal.App.5th 467 (*Golden Door II*), while limited to the facts before the court, provides important guidance. There, the court ruled that a mitigation measure for GHG offsets (M-GHG-1) violated CEQA because it lacked enforceable performance standards and improperly deferred mitigation. The county argued that offsets under M-GHG-1 were adequate because they were "substantially similar" to those permitted under California's cap-and-trade program and that they would be real, permanent, quantifiable, verifiable, enforceable, and additional. The court disagreed, finding M-GHG-1 did not provide any enforceable standards, protocols, or safeguards to ensure these important requirements were actually met. It noted that for cap-and-trade, offsets must not only be purchased from CARB-approved registries but also that those registries must implement CARB approved protocols, which have been subject to CARB's rulemaking process as well as public notice, a comment period, and a public hearing. The court also emphasized the importance of additionality—meaning an offset is not already required by law or regulation or would not otherwise occur—to ensure GHG emissions actually decrease. It also flagged concerns regarding offsets arising outside California; such offsets, if permitted, should be subject to enforcement mechanisms at least as strict and enforceable as under California law. In particular, the court noted foreign offsets are vulnerable to corruption and fraud. The court also ruled M-GHG-1 improperly

deferred mitigation because it allowed deferred approval of unspecified offsets without providing objective performance standards to ensure GHG reduction goals are actually met.

In reading *Golden Door II*, it is important to note that CEQA does not require GHG mitigation to satisfy cap-and-trade requirements. The court analogized M-GHG-1 to cap-and-trade requirements because the mitigation measure's language and the county's arguments invited that comparison. The more universal takeaway from the case is that mitigation must include a formal process and objective standards to determine the validity of GHG offsets to ensure emission reductions actually occur. Accordingly, it is not adequate to generally state that adequate offsets will be acquired (e.g., simply state that they must be real, permanent, quantifiable, verifiable, enforceable, and additional); the mitigation must also include a process or protocol and objective standards to ensure the adequacy of procured offsets. This limits the type and quantity of offset projects that could be used to help plans meet their GHG reduction targets.

All of these factors should be taken into consideration if offsets are to be used to meet a plan's GHG reduction target.

Transparency and Other Considerations

All information regarding the methodology and calculations used to quantify the estimated GHG reductions achieved through each of the measures and any remaining emissions gap to carbon neutrality should be transparent, replicable, and publicly available. According to OPR's General Plan Guidelines, *"When addressing greenhouse gas emissions, like all other technical analysis, the methodology and calculations should be transparent and replicable with the goal of providing substantial evidence supporting the assumptions, analysis and conclusions. Measures should also be real and verifiable, through either full enforceability or through substantial evidence in the record supporting an agency's conclusion that mitigation will be effective"* (OPR 2017: 229). Case law has also addressed this topic – in *Communities for a Better Environment v. City of Richmond*, the court found that that to be adequate, a plan should include measures that are "known to be feasible," "coupled with specific and mandatory performance standards to ensure that the measures, as implemented, will be effective."

As previously mentioned, some local government practitioners are beginning to focus on leading indicators and performance metrics, such as reduced VMT or non-fossil fuel energy use, in addition to or in place of quantitative GHG emissions to track their progress towards carbon neutrality.⁹ For example, envisioning a carbon neutral future with zero carbon buildings, a large mode shift away from passenger vehicles and ubiquitous low- or zero-carbon transportation, and then focusing on the policies needed to be put in place today to achieve that future. Focusing on these metrics rather than on GHG emissions could help catalyze the necessary support for transformative climate action among diverse stakeholders who each have their own priorities. Plans that adopt this approach for post-2030 measures to achieve carbon neutrality by 2045 would still need to substantiate how the measures will result in zero emissions, transparently laying out assumptions, and outlining the quantifiable performance metrics for monitoring progress for each action. They must also include a robust implementation and monitoring strategy (as described in Section 1.6) that outlines a feasible data collection approach for metrics, including data sources and how frequently data points would be gathered.

⁹ "The State of Local Climate Planning," CityScale, 2021 (<https://cityscale.org/2021/05/20/the-state-of-local-climate-planning/>)

1.6 SUB-SECTION (b)(1)(E): IMPLEMENTATION AND MONITORING STRATEGY

Section 15183.5(b)(1)(E) describes the fifth Plan Element: *“Establish a mechanism to monitor the plan’s progress toward achieving the level and to require amendment if the plan is not achieving specified levels.”* The Implementation and Monitoring Strategy lays out how the local government will determine if the plan is adequately advancing the community toward achieving its GHG reduction targets and the steps to revise the plan as needed to ensure it is on track towards meeting those targets. It should include a review of the original mitigation strategy in the Plan and assess if the GHG reduction measures are being implemented according to the Plan’s original timeline and scale (e.g., are measures that were described as mandatory in the Plan being implemented that way). Any changes to the Plan’s original mitigation strategy and timeline should be transparently discussed and justified.

The Air District recommends that the Implementation and Monitoring Strategy include details on the following:

- ▶ A process for updating the emissions inventory and forecast – Air District staff recommend this be done every three years, as feasible;
- ▶ The timeline for implementing the measures in the mitigation strategy, including individual measure timelines, funding sources, lead departments/organizations, and tracking/monitoring mechanisms;
- ▶ Staffing and budgeting resources to support the implementation of the plan;
- ▶ Roles and responsibilities for implementing the plan, including dedicated staff to oversee the implementation, monitoring, and updating of the plan.
- ▶ Regular (annual if possible) public reporting of progress in implementing the plan’s mitigation strategy, including updates to the timeline, performance metrics and GHG reductions achieved;
- ▶ A process to update the plan every 3-5 years, particularly if needed to adjust for any emission reduction shortfalls, or shortfalls in meeting performance goals and revise the mitigation strategy to account for any measures which are not being implemented, are no longer relevant to the community, are underperforming, or should be updated or added due to new technologies or other advances, to ensure the plan is on track for meeting the GHG reduction targets;
- ▶ A checklist for development projects to easily determine consistency with the plan’s mitigation strategy.

1.7 SUB-SECTION (b)(1)(F): ADOPTION IN A PUBLIC PROCESS AFTER ENVIRONMENTAL REVIEW

Local plans that reduce GHG emissions must still undergo environmental review. While it may seem like a plan to reduce GHG emissions would be purely beneficial to a community, there could be trade-offs in the plan that have environmental consequences. For example, a measure calling for the installation of bike paths might require analysis of impacts to species or habitat. In addition, Section 15183.5(b)(2) requires

environmental review if the plan will be relied on later for future projects to tier off. That is, a lead agency may rely on the environmental analysis in the plan to forego CEQA analysis of greenhouse gas emissions on future projects if those projects are consistent with the plan.

Once an environmental analysis has been completed for the plan, the plan must be adopted in a public process. Public participation is a mandated and essential component of CEQA, as it leads to better informed decision-making. In order to meaningfully engage all populations and sectors of the community in the review and adoption process, lead agencies should undertake robust outreach and participation activities. Achieving a high level of participation from all segments of the community in the public review and adoption process can increase the likelihood that community interests and concerns are adequately addressed by the plan. Resources that may help lead agencies develop effective and strong public engagement processes include:

Promising Practices for EJ Methodologies in NEPA Reviews (Report of the Federal Interagency Working Group on Environmental Justice & NEPA Committee, 2016, https://www.epa.gov/sites/default/files/2016-08/documents/nepa_promising_practices_document_2016.pdf)

Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (Chapter 5, CAPCOA 2022, https://www.airquality.org/ClimateChange/Documents/Final%20Handbook_AB434.pdf)

1.8 UPDATING EXISTING PLANS TO ALIGN WITH THIS GUIDANCE

Lead agencies with existing plans that pre-date these plan-level thresholds of significance focused on supporting the State's targets of a 40+ percent reduction in emissions by 2030 and achieving carbon neutrality by 2045, have options for bringing their existing plans into alignment with the thresholds.

Option A: Conduct a full update of the plan

If the timing is right, a lead agency may choose to conduct a full update of the existing plan, including updating the GHG inventories and forecasts, revisiting the GHG mitigation strategy, adding new components like an equity or adaptation section, etc. This can be a time-consuming and resource-intensive process, but most local governments do update their plans regularly and these new thresholds could provide a motivation to begin this process.

Option B: Conduct a partial update as an amendment to the plan

A less time- and resource-intensive option might be to update only the necessary portions of the plan to bring it into alignment with the new thresholds. Depending on the plan, these portions might include:

- ▶ updating the GHG forecast out to 2045
- ▶ extending quantification estimates for GHG reduction measures out to 2045
- ▶ adding additional GHG reduction measures to reduce residual emissions in 2045 as much as is technologically and financially feasible (particularly the four design elements listed in section 1.5 above)

- ▶ updating the implementation and monitoring plans to reflect implementation of the plan to-date and strengthen with any new best practices

Such an amendment should include a public engagement process and might require a new round of environmental review. Jurisdictions may make the case that outreach conducted on the existing plan is appropriate for alignment purposes. This option is most appropriate for pre-existing plans that were adopted relatively recently and thus might already be close to compliant with the new thresholds.

1.9 EARLY CONSULTATION WITH THE AIR DISTRICT

Early consultation with Air District staff is strongly encouraged. The importance of communicating with Air District staff early in the climate planning process cannot be over-emphasized. Air District staff is available to meet with local government planners, review methodologies, discuss approaches and key issues. Local government staff and their consultants are encouraged to contact the Air District's Climate Team at climate@baaqmd.gov.

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