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June 22, 2022

Via Electronic Submission

California Air Resources
Office of the Clerk
1001 I Street
Sacramento, CA 95814

Re: Request for Public Comment Extension Related to the 2022 Draft Scoping Plan and Environmental Analysis

To Whom it May Concern:

We have reviewed the California Air Resources Board's ("CARB") 2022 Draft Scoping Plan and appendices, inclusive of Appendix B: Draft Environmental Analysis and other related materials.[1] In response, Holland & Knight has submitted a total of five requests pursuant to the California Public Records Act ("CPRA") seeking the public records[2] that support the conclusions and findings presented in the Draft Environmental Analysis. These requests are also attached to this letter for ease of reference.

This letter seeks an extension of the public comment period for the Environmental Analysis for the 2022 Draft Scoping Plan until 45 days after CARB has complied with the numerous

[1] *See e.g.,* a PowerPoint Presentation entitled "CARB 2022 Draft Scoping Plan: AB 32 Source Emissions Initial Modeling Results" ("MRPPT") (March 15, 2022). Available at: https://ww2.arb.ca.gov/sites/default/files/2022-03/SP22-Model-Results-E3-ppt.pdf.

[2] A "public record" encompasses any information relating to the discharge of an official duty. *See e.g, Braun v. Taft* (1984) 154 Cal.App.3d 332, 340; *San Gabriel Tribune v. Superior Court* (1983) 143 Cal.App.3d 762, 774. The CPRA broadly defines "public records" as any **writing** containing information relating to the conduct of the public's business prepared, owned, used, or retained by any state or local agency regardless of physical form or characteristics. Gov. Code § 6252(e). The term "writing" has also been broadly defined in a manner that does not pay regard to the writing's physical form or characteristics (handwritten, typed, electronic, or otherwise reproduced, or stored), and includes but is not limited to: written documents, photographs, photocopies, facsimiles, text messages, emails, and writings that are within a public agency's constructive possession. Gov. Code § 6252(e) & (g); *City of San Jose v. Superior Court* (2017) 2 Cal.5th 608, 623.

CPRA requests for writings and information that support the determinations, conclusions and findings by providing the requested public records pursuant to the submitted requests.

The evidence supporting the Environmental Analysis' conclusions and determinations are not contained within any of the foregoing documents, therefore, Holland & Knight has submitted five separate CPRA requests between June 3, 2022 and June 16, 2022 to obtain writings that support the determinations, findings and conclusions presented by CARB. On June 13, 2022, CARB provided a response to the CPRA request submitted on June 3, 2022 ("CPRA Request No. 1") stating "[w]e will contact you within 30 days regarding this request by either providing records responsive to your request (subject to applicable low and exemptions); an estimated date when we expect to complete our search and review of responsive documents, or the reasons, if any, why records are being withheld from disclosure."[3]

As of June 21, 2022, Holland & Knight has not received a response as it relates to the remaining four CPRA requests and does not anticipate receiving any of the requested public records prior to the close of the public comment period on June 24, 2022. **We are extremely concerned that without the public disclosure of these public records, the Environmental Analysis in its current form is merely a compilation of conclusions, findings, and determinations that are not supported by "substantial evidence"[4] and therefore, do not satisfy CEQA's minimum requirements.**

We note that while CARB has opted to conduct an alternative form of analysis to satisfy CEQA through Public Resources Code § 21080.5, CARB's obligations under CEQA remain unchanged.[5] Even with a functionally equivalent document, as CARB has dubbed an "Environmental Analysis", CARB must still comply with all of CEQA's other requirements.[6] The requested public records must be disclosed in order for CARB to meet its obligations under CEQA to ensure that the conclusions, findings and determinations are supported by substantial evidence.

We strongly encourage CARB to comply with the CPRA and CEQA's requirements by timely disclosing the documentation necessary to support the findings, determinations and conclusions set forth in the 2022 Draft Scoping Plan, the Environmental Analysis and associated documents and extending the public comment period to allow the public to review this information. Please do not hesitate to contact Paloma Perez-McEvoy (*paloma.perez-mcevoy@hklaw.com*) should

[3] Letter from Cesar Cuevas, Public Records Act Coordinator, CARB to Jennifer Hernandez, Holland & Knight LLP (June 13, 2022).
[4] CEQA Guidelines § 15384 ("Substantial evidence" means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion); *see also Laurel Heights Improvement Association of San Francisco v. Regents of University of California* (1988) 47 Cal.3d 376, 404 (an EIR must contain facts and analysis, not just bare conclusions and options).
[5] 2 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act (Cont.Ed.Bar 2022) § 21.11.
[6] *Friends, Artists & Neighbors of Elkhorn Slough v. California Coastal Com.* (2021) 72 Cal.App.5th 666, 694 (citing *Mountain Lion Foundation v. Fish and Game Com.* (1997) 16 Cal.4th 105, 114).

you have any questions. We look forward to your timely transmittal of all responsive documentation as well as a proper extension of the public comment period. Thank you.

Sincerely yours,

HOLLAND & KNIGHT LLP

Jennifer L. Hernandez

cc: Richard Corey, CARB Executive Officer (rcorey@arb.ca.gov)

Attachments:
CPRA Request No. 1 (June 3, 2022)
CPRA Request No. 2 (June 13, 2022)
CPRA Request No. 3 (June 14, 2022)
CPRA Request No. 4 (June 15, 2022)
CPRA Request No. 5 (June 16, 2022)

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June 3, 2022

Via Email

California Air Resources Board Public Records Coordinator
Office of Legal Affairs
1001 I Street
Sacramento, CA 95814
prareqst@arb.ca.gov

Re: California Public Records Act Request for Information and Data Related to the 2022 Scoping Plan Update

Dear California Air Resources Board Public Records Coordinator:

Pursuant to the California Public Records Act ("CPRA") (Gov. Code § 6250 *et seq.*), this request seeks public records[1] related to the California Air Resources Board's ("CARB") 2022 Draft Scoping Plan Update and its supporting documentation. Specifically, this request seeks public records that support the findings and conclusions presented in the figures, tables and slides presented in (1) the 2022 Draft Scoping Plan document; (2) its appendices; and (3) the model results presented in a CARB public workshop on March 15, 2022 entitled "CARB Draft Scoping Plan: AB 32 Source Emissions Initial Modeling Results."[2]

The public records sought have been grouped into four major categories that describe the specific information we are seeking from listed figures, tables, and slides. Below each category heading

[1] A "public record" encompasses any information relating to the discharge of an official duty. *See e.g, Braun v. Taft* (1984) 154 Cal.App.3d 332, 340; *San Gabriel Tribune v. Superior Court* (1983) 143 Cal.App.3d 762, 774. The CPRA broadly defines "public records" as any **writing** containing information relating to the conduct of the public's business prepared, owned, used, or retained by any state or local agency regardless of physical form or characteristics. Gov. Code § 6252(e). The term "writing" has been broadly defined in a manner that does not pay regard to the writing's physical form or characteristics, and includes written documents, photographs, photocopies, facsimiles, text messages, emails, and writings that are within a public agency's constructive possession. Gov. Code § 6252(e) & (g); *City of San Jose v. Superior Court* (2017) 2 Cal.5th 608, 623.
[2] Available at: https://ww2.arb.ca.gov/sites/default/files/2022-03/SP22-Model-Results-E3-ppt.pdf. The results from this presentation were also cited in 2022 Draft Scoping Plan footnotes, p. 161 n. 296, p. 222 n. 438.

is a general description of the information and writings sought. Please refer to each specific figure, table, or slide listed for the exact information that is being requested pursuant to this CPRA request. For ease of reference, the relevant figures, tables, and slides are further identified with the prefix as listed:

(1) Draft 2022 Scoping Plan (**SP**)

(2) 2022 Draft Scoping Plan Appendices (**SPA- __**)[3]

(3) Model results presented at a CARB public workshop entitled "CARB Draft Scoping Plan: AB 32 Source Emissions Initial Modeling Results" PowerPoint Presentation (**MRPPT**)

Category 1: The public records sought in this category are: (1) the actual values for any item in the listed figures that were presented as stacked charts, stacked area charts and other undefined groups of items; (2) the actual numerical values for any values that have been presented as percentages; and (3) all writings used to calculate the actual values represented in the list of figures and slides provided below.

- **SP Figure 2-1: Reference and Proposed Scenario GHG Emissions.** Please provide: (1) the actual values for the GHG emissions for each year represented in Figure 2-1 (*i.e.,* 2015, 2020, 2025, 2030, etc.) for both the Reference Scenario and the Proposed Scenario; and (2) all of the writings relied upon to calculate the actual values represented in Figure 2-1.

- **SP Figure 2-3: Petroleum refining emissions with and without carbon capture sequestration.** Please provide: (1) the actual values for GHG Emissions in $MMTCO_2e$ for each year represented in Figure 2-3 (*i.e.,* 2015, 2020, 2025, 2030, 2035, 2040, and 2045) for all four Alternatives (inclusive of the Proposed Scenario) and the Reference Scenario; and (2) all of the writings relied upon to calculate the number values represented in the figure.

- **SP Figure 2-5: Residual emissions in 2020, 2035, and 2045 and potential carbon dioxide removal in 2035, and 2045 for the Proposed Scenario.** Please provide: (1) the actual numerical values for residual GHG emissions for each sector (Agriculture, Recycling and Waste; Electricity Generation; Industrial; High Global Warming Potential; Buildings; and Transportation) for each year represented in Figure 2-5 (*i.e.*, 2020, 2035, and 2045); and (2) all of the writings relied upon to calculate the numerical values represented in the figure.

[3] Each specific appendix is denoted with the corresponding assigned letter in the 2022 Scoping Plan.

- **SP Figure 2-6: Oil and gas extraction sector GHG emission in 2020 and 2045 when activity is phased down with fuel demand.** Please provide: (1) the actual numerical values for GHG emissions in $MMTCO_2e$ for 2020 and 2045; and (2) all writings used to calculate the actual number values represented in the figure.

- **SP Figure 2-9: Petroleum refining sector GHG emissions in 2020 and 2045 (with and without CCS) when activity is phased down with fuel demand.** Please provide: (1) the actual numerical values for GHG emissions expressed in in $MMTCO_2e$ for 2020 and 2045 (without Carbon Capture Sequestration ("CCS")) and 2045 (with CCS); and (2) all writings used to calculate the actual number values represented in the figure.

- **SP Figure 2-10: Comparison of 2017 Scoping Plan with Draft 2022 Scoping Plan Reference Scenario without uncertainty bounds.** Please provide: (1) the actual numerical values for GHG emissions expressed in in $MMTCO_2e$ for all years represented in the figure for based on the 2017 Scoping Plan (No Cap&Trade), Reference Scenaro (No Cap&Trade), and the 2030 Target; (2) all writings used to calculate the actual number values represented in the figure; and (3) all writings used to calculate the difference between the 2017 Scoping Plan and the 2020 Scoping Plan Reference Scenario.

- **SP Figure 3-1: Projected California gross state product (left) and employment growth (right) from 2021 to 2035 and 2045.** Please provide: (1) the actual numerical values represented for projected California gross state product (represented in Billion 2021$) and employment growth represented in the two figures; and (2) all writings used to calculate the actual number values represented in the figures.

- **SP Figure 4-1: Transition of on-road vehicle sales to ZEV technology in the Proposed Scenario.** Please provide: (1) the actual values for the percentage of total new vehicle sales for all years represented in the figure based on LD ZEV sales. MD ZEV sales, and HD ZEV sales; (2) the actual numerical value for each value represented as a percentage in the figure; and (3) all writings used to calculate the values represented in the figure.

- **SP Figure 4-2: Transportation fuel mix in 2020, 2035, and 2045 in the Proposed Scenario.** Please provide: (1) the actual numerical values represented for all years represented in the figure based on energy demand; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-5: Projected electricity resources needed by 2045 in the Proposed Scenario.** Please provide: (1) the actual numerical values represented in the figure expressed in Megawatts ("MW") for all energy sources; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-6: Electric loads in 2020, 2035 and 2045 for the Proposed Scenario.** Please provide: (1) the actual numerical values expressed in Gigawatt hours ("GWh") for all sources of electricity demand for each year represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-7: Final energy demand in industrial manufacturing (left) and in oil and gas extraction and petroleum refining (right) in 2020, 2035, and 2045 in the Proposed Scenario.** Please provide: (1) the actual numerical values for all energy sources for each year represented in the left and right figures; and (2) all writings used to calculate the values represented in the figures.

- **SP Figure 4-8: Final energy demand in buildings in 2020, 2035, and 2045 in the Proposed Scenario.** Please provide: (1) the actual numerical values for all energy sources for each year represented in the figure; and (2) all writing used to calculate the values represented in the figure.

- **SP Figure 4-9: Residential space heating appliance sales in the Proposed Scenario.** Please provide: (1) the actual numerical values for residential space heating appliance sales (both gas and electric) for all of the years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-11: Expected progress toward SB 1383 targeted emissions reductions by 2030 through strategies currently in place.** Please provide: (1) the actual numerical values for GHG emissions expressed as $MMTCO_2e$ for each scenario (i.e., 2013 Reference, 2030 Emissions with no additional actions (estimate), and 2030 Target) for each emissions source represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-15: Methane emissions in 2020, 2035, and 2045 in the Proposed Scenario.** Please provide: (1) the actual numerical values for GHG emissions expressed as $MMTCO_2e$ for each emissions source for all years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-17: Hydrofluorocarbon emissions in 2020, 2035, and 2045 in the Proposed Scenario.** Please provide: (1) the actual numerical values for GHG emissions expressed as $MMTCO_2e$ for each year represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-18: Potential emissions from refrigerants in existing equipment.** Please provide: (1) the actual numerical values for GHG emissions expressed as $MMTCO_2e$ for each scenario represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-19: Remaining non-combustion emissions in 2020, 2035, and 2045 in the Proposed Scenario.** Please provide: (1) the actual numerical values for GHG emissions expressed as $MMTCO_2e$ for each emission source for every year represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-23: Cumulative CO_2e emissions from annual croplands in 2045.** Please provide: (1) the actual numerical values for both scenarios represented as $MMTCO_2e$ for all years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SP Figure 4-24: Cumulative CO_2e emissions from Delta wetlands by 2045.** Please provide: (1) the actual numerical values for both scenarios represented as $MMTCO_2e$ for all years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SPA-B Figure 4-1: Total NOx Emissions for the 2020 Base Year, 2045 Reference, and 2045 Proposed Scenario (tons/day).** Please provide: (1) the actual numerical values for NOx emissions represented as tons per day for all scenarios represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SPA-H Figure H-1: Projected Annual Landfill Methane Emissions ($MMTCO_2e$).** Please provide: (1) the actual numerical values for projected methane emissions represented as $MMTCO_2e$ for all years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SPA-H Figure H-2: Projected Annual California Dairy and Livestock Sector Methane Emissions Reductions Through 2050.** Please provide: (1) the actual numerical values for projected methane emissions for represented as $MMTCO_2e$ for all years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SPA-I Figure 27: Total modeled biomass and HWP carbon stocks in all California forests, shrublands, and grasslands.** Please provide: (1) the actual numerical values for all scenarios represented as MMTC for all years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SPA-I Figure 29: Annual modeled California wildfire specific PM2.5 emissions.** Please provide: (1) the actual numerical values for statewide wildfire emissions represented as MMT PM2.5/year for all five scenarios represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SPA-I Figure 30: Statewide average annual wildfire specific PM2.5 emission from 2025-2045.** Please provide: (1) the actual numerical values represented as MMT

PM2.5/year for all five scenarios represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **SPA-I Figure 35: This figure shows the percent of biomass residue that may be socially beneficial to mobilize after a mechanical treatment relative to destroying those residues using prescribed fire for different carbon prices.** Please provide: (1) the actual values represented in the figure (percentage of biomass residue that could be beneficially mobilized relative to Rx Burn and carbon pricing); (2) the actual numerical values represented as percentages; and (3) all writings used to calculate the values represented in the figure.

- **SPA-I Figure 40: Results of scenario modeling for California urban forests.** Please provide: (1) the actual values for all five scenarios represented as percentages for all years represented in the figure; and (2) the numerical value represented as percentages in the figure; and (3) all writings used to calculate the values represented in the figure.

- **SPA-I Figure 48: Defensible space carbon stocks and removals by county.** Please provide: (1) the actual values represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **MMRPPT Slide 8: Direct Emissions.** Please provide: (1) the actual values for the four scenarios represented as $MMTCO_2e$ for all years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **MMRPPT Slide 9: Total Emissions.** Please provide (1) the actual values for all emission sources represented as $MMTCO_2e$ for all years represented in the figure; and (2) all writings used to calculate the values represented in the figure.

- **MMRPPT Slide 10: Oil & Gas Extraction and Petroleum Refining Emissions.** Please provide: (1) the actual values for emissions sources for all scenarios and all years represented in both figures; and (2) all writings used to calculate the values represented in the figures.

- **MMRPPT Slide 11: Non-Energy Emissions.** Please provide: (1) the actual values for all emissions sources represented as $MMTCO_2e$ (100-yr GWP) for all scenarios and all years represented in figure; and (2) all writings used to calculate the values represented in the figure.

- **MMRPPT Slide 13: Building Energy Demand.** Please provide: (1) the actual values for all energy sources represented in Exajoules for all scenarios and all years represented in the figure; and (2) the actual numerical value for all percentages represented in the figure; and (3) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 14: Transportation Energy Demand.** Please provide: (1) the actual values for all energy sources represented in Exajoules for all scenarios and all years represented in the figure; and (2) the actual numerical value for all percentages represented in the figure; and (3) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 15: Industry and Agriculture Energy Demand.** Please provide: (1) the actual values for all energy sources represented in Exajoules for all scenarios and all years represented in the figure; and (2) the actual numerical value for all percentages represented in the figure; and (3) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 17: Energy Demand by Fuel.** Please provide: (1) the actual values for all energy sources for all five scenarios represented in the figure; (2) the numerical values for all percentages represented in the figure; and (3) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 18: Combustion Fuels Transition.** Please provide: (1) the actual values for all energy sources for all scenarios represented in the figure; (2) the numerical values for all percentages represented in the figure; and (3) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 19: Light Duty Vehicle Stocks.** Please provide: (1) the actual values for Light Duty Vehicle ("LDV") ZEV Stocks represented as millions in the figure; (2) the numerical values for all percentages represented in the figure; (3) a confirmation of the number of internal combustion engine ("ICE") vehicles are assumed in 2045 in Alternative 3; and (4) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 20: Transportation Adoption Transitions.** Please provide: (1) the actual number of each vehicle class by fuel type (*i.e.,* battery electric, plug-in hybrid, hydrogen fuel cell, CNG, and ICE) represented in the five scenarios in the figure; and (2) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 21: Building Sector Adoption Transitions.** Please provide: (1) the actual values for the heating sources, inclusive of "No Heat," represented in the figure; (2) the numerical values for all percentages represented in the figure; (3) the definition of a "No Heat" building; and (4) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 23: Summary.** Please provide: (1) the actual values for electric sector GHG emissions by scenarios represented as $MMTCO_2e$ in the figure; and (2) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 24: Loads by Scenario.** Please provide: (1) the actual values for loads by scenario (represented in TWh) for all years represented in the figure; (2) the numerical values for all percentages represented in the figure; and (3) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 25: Cumulative New Resource Capacity Build in 2035.** Please provide: (1) the actual values for all energy sources, represented as Gigawatts ("GW") for all scenarios represented in the figure; (2) the numerical values for all percentages represented in the figure; (3) any changes to the values represented in this figure compared to the 2022 Draft Scoping Plan; and (4) all writings used to calculate all of the values represented in the figure.

- **MMRPPT Slide 26: Cumulative New Resource Capacity Build in 2045.** Please provide: (1) the actual values for all energy sources, represented as GW for all scenarios represented in the figure; (2) any changes to the values represented in this figure compared to the 2022 Draft Scoping Plan; (3) all writings showing that 40 GW of batteries will meet "SB 100 retail sales target;" (4) all writings showing that Alternative 3/Proposed Screnario[4] assumes that all gas remains online and approximately 10 GW of new gas is built; and (4) all writings used to calculate all of the values represented in the figure.

Category 2: The information sought in this category requests: (1) the total impact or benefit (cost, gross state product ("GSP"), employment, personal income household income, health, etc.) from achieving the State's GHG emission targets, including both the Reference Scenario and the applicable alternative; (2) if the impact or benefit is shown in constant dollars (*e.g.,* Billion 2021$) the nominal unadjusted values for each year from 2022-2045; and (3) all writings showing how the actual, unadjusted values were calculated (in dollars, both nominal and constant dollars). The following provides a more detailed description of the information and writings sought from specific figures and tables.

- **SP Figure 3-2: Projected California gross state product (left) and employment growth (right) from 2021 to 2035 and 2045.** Please provide (1) the total impact or benefit from achieving that State's GHG emission targets, including both the Reference Scenario and each applicable Alternative; (2) the unadjusted value for each year from 2022 to 2045; and (c) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SP Table 3-1: Cost and saving relative to a growing California economic for the Proposed Scenario and NWL Alternatives (NWL).** Please provide (1) the total impact

[4] The terms Alternative 3 and Proposed Scenario are used interchangeably.

or benefit from achieving the State's GHG emissions targets, including both the Reference Scenario and each applicable Alternative; (2) the nominal adjusted values for each year from 2022 to 2045; and (3) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SP Figure 3-3: Gross state product (left) and employment (right) relative to a growing California economy for the Proposed Scenario and Alternatives in 2035 and 2045 (AB 32 GHG Inventory sectors).** Please provide (1) the total impact or benefit from achieving the State's GHG emissions targets, including both the Reference Scenario and the applicable Alternative; (2) the nominal adjusted values for each year from 2022 to 2045 for the figure on the left, which are shown in constant dollars (Billion 2021$); and (3) all writings showing how the actual, unadjusted values were calculated (including both nominal and constant dollars for the figure on the left).

- **SP Table 3-2: Household impacts relative to a growing California economic for the Proposed Scenario and Alternatives in 2035/2045 (AB 32 GHG Inventory sectors).** Please provide: (1) the total impact from achieving the State's GHG emission targets; represented in constant dollars (billion 2021$ and jobs), including both the Reference Scenario and each applicable Alternative; (2) the nominal adjusted values for each year from 2022 to 2045 for the Changes in Household Personal Income; and (3) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars for the Change in Household Personal Income).

- **SP Table 3-3: Gross state product and employment relative to a growing California economy for the Proposed Scenario and Alternatives in 2035/2045 (NWL).** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including both the Reference Scenario and each applicable Alternative; (2) all writings showing how the actual, unadjusted values were calculated.

- **SP Figure 3-6: Total health benefits in July and January 2045 relative to the Reference Scenario for the Proposed Scenario and Alternatives (AB 32 GHG Inventory sectors).** Please provide: (1) the total benefit from achieving the State's GHG emission targets, including both the Reference Scenario and each applicable Alternative represented in constant dollars (Billion 2021$); (2) the nominal adjusted values for each year from 2022 to 2045, which are shown in constant dollars (Billion 2021$); and (3) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SP Figure 3-7: Disadvantaged community health benefits in July and January 2045 relative to the Reference Scenario for the Proposed Scenario and Alternatives (AB 32 GHG Inventory sectors).** Please provide: (1) the total benefit from achieving the State's GHG emission targets, including both the Reference Scenario and each applicable Alternative represented in constant dollars (Billion 2021$); (2) the nominal adjusted

values for each year from 2022 to 2045, which are shown in constant dollars (Billion 2021$); and (3) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SP Figure 3-8: Total average annual health benefits relative to the Reference Scenario for the Proposed Scenario and Alternatives (NWL).** Please provide: (1) the total benefit from achieving the State's GHG emission targets, including both the Reference Scenario and each applicable Alternative represented in constant dollars (Billion 2021$); (2) the nominal adjusted values for each year from 2022 to 2045, which are shown in constant dollars (Billion 2021$); and (3) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SP Figure 4-21: Forest (left) and shrubland (right) carbon stocks by 2045.** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including both the Reference Scenario and the Reference Scenario; and (2) all writings showing how the actual, unadjusted values were calculated.

- **SP Figure 4-22: Grassland carbon stocks by 2045.** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including both the Reference Scenario and the Proposed Scenario; and (2) all writings showing how the actual, unadjusted values were calculated.

- **SP Figure 4-25: Carbon stocks in urban forests by 2045.** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including both the Reference Scenario and the Proposed Scenario; and (2) all writings showing how the actual, unadjusted values were calculated.

- **SP Figure 4-26: Carbon stocks in sparsely vegetated lands by 2045.** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including both the Reference Scenario and the Proposed Scenario; and (2) all writings showing how the actual, unadjusted values were calculated.

- **SPA-B Figure 4-1: Total NOx Emission for the 202 Base Year, 2045 Reference, and 2045 Proposed Scenario (tons/day).** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including the Reference Scenario, 2020 Base, 2045 CERAM, and Proposed Scenario; and (2) all writings showing how the actual, unadjusted values were caclulated.

- **SPA-G Table G-4: CARB Estimations of Health Impacts from Land Management Actions (2025-45).** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including the Reference Scenario and each applicable Alternative; (2) the nominal, unadjusted values for each year from 2022 to 2045; (3) all writings showing how the actual, unadjusted values were calculated (both in nominal and

constant dollars); and (4) all writings explaining or showing now the Business as Usual ("BAU") Scenario is defined in Appendix G.

- **SPA-G Table G-9: Quantified Health Benefits from Active Transportation - Annual Change in the Burden of Disease, Combined Scenario compared to BAU 2050.** Please provide: (1) the total benefit from achieving the State's GHG emission targets, including the Reference Scenario and the Proposed Scenario under the 2022 Draft Scoping Plan; (2) all writings showing how the actual, unadjusted values were calculated; and (3) all writings explaining or showing the BAU Scenario is defined in Appendix G.

- **SPA-G Table G-10: Quantified Health Benefits from Active Transportation - Annual Change in the Burden of Disease by Chronic Disease Outcome Combined Scenario Compared to BAU 2050.** Please provide: (1) the total benefit from achieving the State's GHG emission targets, including the Reference Scenario and the Proposed Scenario under the 2022 Draft Scoping Plan; (2) all writings showing how the actual, unadjusted values were calculated; and (3) all writings explaining or showing what the BAU Scenario is in Appendix G.

- **SPA-G Table G-11: Quantified Health Benefits from Active Transportation by Race Compared to BAU 2050.** Please provide: (1) the total benefit from achieving the State's GHG emission targets, including the Reference Scenario and the Proposed Scenario under the 2022 Draft Scoping Plan; (2) all writings showing how the actual, unadjusted values were calculated; and (3) all writings explaining or showing what the BAU Scenario is in Appendix G.

- **SPA-H Table H-39: Peak and population-weighted reductions in 24-h $PM_{2.5}$ and MD8H ozone for the Proposed Scenario and Alternative relative to the Reference Scenario.** Please provide: (1) the total benefit from achieving the State's GHG emission targets, including the Reference Scenario and each applicable Alternative; and (2) all writings showing how the actual, unadjusted values were calculated.

- **SPA-H Figure H-11: Cost and saving from PATHWAYS in a single year relative to the Reference Scenario for the Proposed Scenario (Alternative 3) and Alternatives in 2035 and 2045.** Please provide: (1) the total benefit from achieving the State's GHG emission targets, including the Reference Scenario and each applicable Alternative; (2) the nominal, unadjusted values for each year from 2022 to 2045; and (3) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SPA-H Figure H-12: Gross State Product impact from IMPLAN in a single year relative to a growing California economy for the Proposed Scenario (Alternative 3) and Alternatives in 2035 and 2045.** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including the Reference Scenario and each

applicable Alternative; (2) the nominal, unadjusted values for each year from 2022 to 2045; and (3) all writing showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SPA-H Figure H-13: Employment impact from IMPLAN in a single year relative to the growing California workforce for the Proposed Scenario (Alternative 3) and Alternatives in 2035 and 2045.** Please provide: (1) the total impact from achieving the State's GHG emission targets, including the Reference Scenario and each applicable Alternative; and (2) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SPA-H Figure H-14: Impact from IMPLAN in a single year relative to growing personal income for the Proposed Scenario (Alternative 3) and Alternatives in 2035 and 2045.** Please provide (1) the total impact from achieving the State's GHG emission targets, including the Reference Scenario and each applicable alternative; and (2) the nominal, unadjusted values for each year from 2022 to 2045; and (3) all writing showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SPA-H Figure H-15: Impact from IMPLAN in a single year relative to growing California households and personal income for the Proposed Scenario (Alternative 3) and Alternatives in 2035 and 2045.** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including the Reference Scenario and each applicable alternative; and (2) the nominal, unadjusted values for each year from 2022 to 2045; and (3) all writings showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SPA-I Figure 31: Average annual health related cost different between BAU and alternative scenarios.** Please provide: (1) the total impact or benefit from achieving the State's GHG emission targets, including the Reference Scenario and each applicable alternative; and (2) the nominal, unadjusted values for each year from 2022 to 2045; and (3) all writing showing how the actual, unadjusted values were calculated (both in nominal and constant dollars).

- **SPA-I Table 65: Percent Changes in 2035.** Please provide: (1) the total impact or benefit from achieving the State GHG emission targets, including the Reference Scenario and each applicable alternative; and (2) all writings showing how the actual, unadjusted values were calculated.

- **SPA-I Table 66: Percent Changes in 2045.** Please provide: (1) the total impact or benefit from achieving the State GHG emission targets, including the Reference Scenario and each applicable alternative; and (2) all writings showing how the actual, unadjusted values were calculated.

- **SPA-I Table 67: Percent changes to Employment by Industry in 2035.** Please provide: (1) the total impact or benefit from achieving the State GHG emission targets, including the Reference Scenario and each applicable alternative; and (2) all writings showing how the actual, unadjusted values were calculated.

- **SPA-I Table 68: Percent changes to Employment by Industry in 2045.** Please provide: (1) the total impact or benefit from achieving the State GHG emission targets, including the Reference Scenario and each applicable alternative; and (2) all writings showing how the actual, unadjusted values were calculated.

Category 3: The information sought in this category seeks (1) the total emissions reduction, benefit, cost, etc. for each specific action presented in the tables below from achieving the state's GHG emission targets, including both the Reference Scenario and applicable Alternative; and (2) all writings showing how those results were calculated.

- **SP Table 3-4: Estimated GHG and criteria pollutant emission reductions relative to the Reference Scenario for the Proposed Scenario in 2035/2045.** Please provide: (1) the total GHG and criteria pollutant emissions reduction for each specific action identified in SP Table 2-2 and in SPA-C Table C-1 from achieving the state's GHG emissions targets, including both the reference scenario and applicable alternative; and (2) all writings showing how the results were calculated.

- **SP Table 3-5: Estimated average annual GHG and criteria pollutant emission reductions relative to the Reference Scenario for the Proposed Scenario from 2025–2045.** Please provide: (1) the total GHG and criteria pollutant emissions reduction for each specific action identified in SP Table 2-2 and in SPA-C Table C-1 from achieving the state's GHG emissions targets, including both the reference scenario and applicable alternative; and (2) all writings showing how the results were calculated.

- **SP Table 3-6: Estimated avoided incidence of mortality, cardiovascular and respiratory disease onset, work loss days and hospital admissions relative to the Reference Scenario for the Proposed Scenario.** Please provide: (1) the total avoided incidence reduction for each specific action identified in SP Table 2-2 and in SPA-C Table C-1 from achieving the state's GHG emissions targets, including both the reference scenario and applicable alternative; and (2) all writings showing how the results were calculated.

- **SP Table 3-7: Estimated average annual avoided incidence of hospital admissions, emergency room visits, and mortality relative to the Reference Scenario for the Proposed Scenario resulting from forest, shrubland, and grassland wildfire emissions.** Please provide: (1) the total estimated social cost (avoided economic damages) for each specific action identified in SP Table 2-3 and in SPA-C Table C-2

from achieving the state's GHG emissions targets, including both the reference scenario and applicable alternative; and (2) all writings showing how the results were calculated.

- **SP Table 3-8: Estimated social cost (avoided economic damages) of measures considered in the Proposed Scenario (AB 32 GHG Inventory sectors).** Please provide: (1) the total estimated social cost (avoided economic damages) for each specific action identified in SP Table 2-2 and in SPA-C Table C-1 from achieving the state's GHG emissions targets, including both the reference scenario and applicable alternative; and (2) all writings showing how the results were calculated.

- **SP Table 3-9: Estimated social cost (avoided economic damages) of measures considered in the Proposed Scenario (NWL).** Please provide: (1) the total estimated social cost (avoided economic damages) for each specific action identified in SP Table 2-3 and in SPA-C Table C-2 from achieving the state's GHG emissions targets, including both the reference scenario and applicable alternative; and (2) all writings showing how the results were calculated.

- **SP Table 3-10: Estimated cost per metric ton of reduced CO2e relative to the Reference Scenario for measures considered in the Proposed Scenario (AB 32 GHG Inventory sectors).** Please provide: (1) the total estimated social cost (avoided economic damages) for each specific action identified in SP Table 2-2 and in SPA-C Table C-1 from achieving the state's GHG emissions targets, including both the reference scenario and applicable alternative; and (2) all writings showing how the results were calculated.

- **SP Table 3-11: Estimated average cost per metric ton of reduced CO_2e relative to the Reference Scenario for measures considered in the Proposed Scenario (NWL).** Please provide: (1) the total estimated cost for each specific action identified in SP Table 2-3 and in SPA-C Table C-2 from achieving the state's GHG emissions targets, including both the reference scenario and applicable alternative; and (2) all writings showing how the results were calculated.

Category 4: This category seeks certain information from figures, tables and slides as listed below.

- **SP Figure 1-4: California climate investments cumulative outcomes.** Please provide: (1) the total actually spent on each item; (2) the number of affordable units actually built; (3) criteria for defining "affordable housing;" and (4) the amount spent on Direct Air Capture ("DAC").

- **SP Figure 3-4: Illustration of NOx emission reductions from current levels for the Reference Scenario, the Proposed Scenario, and Alternatives in 2045 (AB 32 GHG**

Inventory sectors). Please provide all writings showing how NOx reductions shown in the figure were calculated.

- **SP Figure 3-5: Reductions in population-weighted PM2.5 in January 2045 and the associated avoided incidence of premature mortality for the Proposed Scenario and Alternatives (AB 32 GHG Inventory sectors).** Please provide all writings showing how population weighted $PM_{2.5}$ outcomes were calculated.

- **SP Figure 3-10: Least and most impacted neighborhoods from CalEnviroScreen.** Please provide: (1) all writings showing or describing how People of Color and White were defined; and (2) all writings showing how pollution burdens were defined and demonstrated.

- **SP Figure 3-11: Top sources of $PM_{2.5}$ and their contribution to PM2.5 exposures by race and in disadvantaged communities (DACs).** Please provide: (1) all writings that show how racial groups were defined; (2) all writings showing how $PM_{2.5}$ exposures were defined and calculated for each source in the table.

- **SP Figure 4-10: Carbon management infrastructure.** Please provide all writings used to develop the number, location, pipeline length, annual and total storage, energy demand, energy supply and cost of the Carbon Capture Sequestration ("CCS") cement, refinery and electrical generation capture installations, CDR capture installations, transport pipelines, and storage pipelines/facilities shown in this figure.

- **SP Table 4-1: 2022 Scoping plan modeled target for NWL, based on increasing action on NWL.** Please provide all writings that show how the change in carbon stock was calculated.

- **SPA-B Table 4-3: Total Reductions in NOx, PM2.5, and ROG in 2045 for the Proposed Scenario.** Please provide all writings showing how the changes for each constituent were calculated for 2045.

- **SPA-B Table 4-4: Estimated Air Quality Improvement from Peak and Population-Weighted Reductions in 24-hour PM2.5 and Ozone for the Proposed Scenario.** Please provide all writings showing how the changes for each constituent were calculated for 2045.

- **SPA-B Table 4-5: Avoided Incidence of Health Endpoints from Reduced Exposure to $PM_{2.5}$ during January 2045.** Please provide all writings showing how the changes for each constituent were calculated for 2045.

- **SPA-B Table 4-6: Avoided Incidence of Health Endpoints from Reduced Exposure to $PM_{2.5}$ and Ozone during July 2045.** Please provide all writings showing how the changes for each constituent were calculated for 2045.

- **SPA-B Table 4-7: Estimated Average Annual GHG and Criteria Pollutant Emissions for forests, grasslands, and shrublands relative to the Reference Scenario for the Proposed Scenario from 2025-2045.** Please provide all writings showing how the changes for each constituent were calculated from 2025 to 2045.

- **SPA-B Table 4-8: Estimated average annual avoided incidence of hospital admissions emergency room visits, and mortality relative to the Reference Scenario for the Proposed Scenario resulting from forest, shrubland, and grassland wildfire emission.** Please provide all writings showing how the changes for each constituent were calculated from 2025 to 2045.

- **SPA-B Table 4-12: GHG Emissions Reductions from PATHWAYS Modeling of AB 32 GHG Inventory Sectors (in $MMTCO_2e$).** Please provide all writings showing how the GHG reductions were calculated in 2021 and 2045.

- **SPA-B Table 4-13: Average Annual GHG Emissions and Reductions from NWL Modeling of NWL Sectors 2025-2045 ($MMTCO_2e$/year).** Please provide all writings showing how the GHG reductions were calculated.

- **SPA-E Figure W:** Please provide all writings calculating the extent to which, in metric tons, the "VMT Trend" (red line) and the VMT Unchanged (yellow line) will "miss" the 2045 GHG target.

- **SPA-G Figure G-12:** Please provide all writings that show how "food deserts" are defined, calculated and located.

- **SPA-H Table H-10: Macroeconomic assumptions.** Please provide: (1) all writings showing how direct costs were calculated; (2) the actual nominal values; and (2) all writings showing how those values were converted to constant dollars.

- **SPA-H Table H-38: Total reductions in NOx, PM2.5, and Reactive Organic Gasses (ROG) in 2045 for each alternative.** Please provide all writings showing how constituent reductions were calculated.

- **SPA-H Table H-40: Avoided incidence of health endpoints from reduced exposure to $PM_{2.5}$ during January 2045.** Please provide all writings showing how the 2045 avoided incidence of health endpoints were calculated for each alternative.

- **SPA-H Table H-41: Value of avoided health incidence from reduced exposure to PM2.5 during January 2045 reported in million 2021 dollars.** Please provide: (1) all writings showing how health outcome values were calculated; (2) the actual nominal values; and (3) all writings showing how the actual nominal values were converted to constant dollars.

- **SPA-H Table H-42: Avoided incidence of health endpoints from reduced exposure to PM2.5 and ozone during July 2045.** Please provide all writings showing how constituent reductions were calculated.

- **SPA-H Table H-43: Value of avoided health incidence from reduced exposure to PM2.5 and ozone during July 2045 reported in million 2021 dollars.** Please provide: (1) all writings showing how health outcome values were calculated; (2) the actual nominal values; and (3) all writings showing how the actual nominal values were converted to constant dollars.

- **SPA-H Table H-44: Value of the health benefits occurring within California census tracts identified as DAC using CalEnviroScreen 4.0.** Please provide: (1) all writings showing how health outcome values were calculated; (2) the actual nominal values; and (3) all writings showing how the actual nominal values were converted to constant dollars.

- **SPA-I Table 64: Aggregate Annual Direct Costs.** Please provide: (1) all writings showing how direct NWL costs were calculated for each landscape; (2) whether the costs are factored as nominal or constant dollars; and (3) the time frame studied in the table.

- **MRPPT Slide 6: Key Metrics.** Please provide all writings showing any changes in information on this slide to the 2022 Draft Scoping Plan publication.

We note that this request reasonably describes the writings sought through their content contained therein and therefore, reasonably describes identifiable writings and information related figures and tables presented in the foregoing documents.[5] We request that such responsive records be made promptly available in an electronic format (CD, USB Drive, or Shared File Site, such as DropBox).[6] If there are hard copies that are not currently stored in an electronic format, we will arrange to inspect these documents in your office and arrange for copies to be made.

We note that the attorney-client privilege does not apply to management decisions made by lawyers serving in management roles. If you elect to assert either the attorney-client or

[5] Gov. Code § 6257; *Cal. First Amendment Coalition v. Superior Court* (1998) 67 Cal.App.4th 159.
[6] *See e.g.,* 88 Ops.Cal.Atty.Gen. 153, pp. 12-13 (2005) (reinforcing the requirement that government agencies make identifiable public records promptly available); 89 Ops.Cal.Atty.Gen. 39, p. 3 (2006) (same).

deliberative process privilege for any documentation that is otherwise responsive to this request, we ask that you expressly disclose reliance on such a privilege claim that we can seek timely judicial review of your failure to disclose all responsive documents.

Please do not hesitate to contact Paloma Perez-McEvoy (*paloma.perez-mcevoy@hklaw.com*) if you have any initial questions about the foregoing request. We look forward to your timely transmittal of all responsive documentation. Thank you.

Sincerely yours,

HOLLAND & KNIGHT LLP

Jennifer L. Hernandez

cc: Richard Corey, CARB Executive Officer (rcorey@arb.ca.gov)

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June 13, 2022

Via Email

California Air Resources Board Public Records Coordinator
Office of Legal Affairs
1001 I Street
Sacramento, CA 95814
prareqst@arb.ca.gov

Re: California Public Records Act Request for Information and Data Related to the 2022 Scoping Plan Update

Dear California Air Resources Board Public Records Coordinator:

Pursuant to the California Public Records Act ("CPRA") (Gov. Code § 6250 *et seq.*), this request seeks public records[1] related to the California Air Resources Board's ("CARB") 2022 Draft Scoping Plan Update and its supporting documentation. Specifically, this request seeks public records that support the findings and conclusions presented in the figures, tables and slides presented in (1) the 2022 Draft Scoping Plan document; (2) its appendices; and (3) the AB 32 GHG Inventory Sectors Modeling Data Spreadsheet published by CARB with the 2022 Draft Scoping Plan ("2022-draft-SP-PATHWAYS-data-E3").[2]

[1] A "public record" encompasses any information relating to the discharge of an official duty. *See e.g, Braun v. Taft* (1984) 154 Cal.App.3d 332, 340; *San Gabriel Tribune v. Superior Court* (1983) 143 Cal.App.3d 762, 774. The CPRA broadly defines "public records" as any **writing** containing information relating to the conduct of the public's business prepared, owned, used, or retained by any state or local agency regardless of physical form or characteristics. Gov. Code § 6252(e). The term "writing" has also been broadly defined in a manner that does not pay regard to the writing's physical form or characteristics (handwritten, typed, electronic, or otherwise reproduced, or stored), and includes but is not limited to: written documents, photographs, photocopies, facsimiles, text messages, emails, and writings that are within a public agency's constructive possession. Gov. Code § 6252(e) & (g); *City of San Jose v. Superior Court* (2017) 2 Cal.5th 608, 623.

[2] Available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fww2.arb.ca.gov%2Fsites%2Fdefault%2Ffiles%2F2022-05%2F2022-draft-sp-PATHWAYS-data-E3.xlsx&wdOrigin=BROWSELINK (accessed June 8, 2022).

The public records sought have been grouped into six major topic areas that describe certain writings sought to support the findings in the foregoing materials. Below each heading is a description of the writings and information sought pursuant to this CPRA request.

1. Per Capita VMT

1.1. All writings used to calculate the metric tons of greenhouse gas ("GHG") emissions that would occur in 2030 and 2045 solely from VMT in the per capita "VMT Trend" scenario described on page 5 and in Figure W of Draft 2022 Scoping Plan Appendix E.

1.2. All writings used to calculate the metric tons of GHG emissions that would occur in 2030 and 2045 solely from VMT in the per capita "VMT Unchanged" scenario described on page 5 and in Figure W of 2022 Draft Scoping Plan Appendix E.

1.3. All writings used to calculate the metric tons of GHG emissions would occur in 2030 and 2045 solely from VMT in the per capita "19.0 VMT" scenario described on page 5 and in Figure W of 2022 Draft Scoping Plan Appendix E.

1.4. All writings used to calculate the net change in metric tons of GHG emissions in 2030 and 2045 that would occur in the per capita "VMT Trend" scenario relative to the "19.0. VMT" scenario described on page 5 and in Figure W of 2022 Draft Scoping Plan Appendix E.

1.5. All writings used to calculate the net change in metric tons of GHG emissions in 2030 and 2045 in the per capita "VMT Unchanged" scenario relative to the "19.0. VMT" scenario described on page 5 and in Figure W of 2022 Draft Scoping Plan Appendix E.

1.6. All writings showing how the 2022 Draft Scoping Plan per capita VMT reductions of "12%" by 2030 and "22%" were calculated.

1.6.1. All writings used to calculate the "Light Duty Vehicles" per capita VMT numbers provided for the "Alt 3" scenario in the "VMT Per Capita" tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan, including entries of "8560.893407" in 2019, "7060.600107" for 2030 and "6004.211399" in 2045.

1.6.2. All writings showing how the per capita VMT numbers provided for the "Alt 3" scenario in the "VMT Per Capita" tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan equates to a 12% per capita VMT reduction from 2019 levels by 2030 and a 22% per capita VMT reduction from 2019 levels by 2045 as stated in the 2022 Draft Scoping Plan.

1.7. All writings used to calculate the cost of achieving the 2022 Draft Scoping Plan targets of a 12% per capita VMT reduction from 2019 levels by 2030 and a 22% per capita VMT reduction from 2019 levels from 2022 to 2045.

1.7.1. All writings used to calculate the housing supply impacts of achieving the 2022 Draft Scoping Plan targets of a 12% per capita VMT reduction from 2019 levels by 2030 and a 22% per capita VMT reduction from 2019 levels.

1.7.2. All writings used to calculate the housing cost impacts of achieving the 2022 Draft Scoping Plan targets of a 12% per capita VMT reduction from 2019 levels by 2030 and a 22% per capita VMT reduction from 2019 levels.

1.7.3. All writings used to calculate the cost impacts to below median income households of achieving the 2022 Draft Scoping Plan targets of a 12% per capita VMT reduction from 2019 levels by 2030 and a 22% per capita VMT reduction from 2019 levels by 2045.

1.7.4. All writings used to calculate the cost impacts to households by ethnicity and race of achieving the 2022 Draft Scoping Plan targets of a 12% per capita VMT reduction from 2019 levels by 2030 and a 22% per capita VMT reduction from 2019 levels by 2045.

1.7.5. All writings used to calculate the cost impacts to priority populations of achieving the 2022 Draft Scoping Plan targets of a 12% per capita VMT reduction from 2019 levels by 2030 and a 22% per capita VMT reduction from 2019 levels by 2045.

2. 2022 Draft Scoping Plan Land and Waters Conversion

2.1. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to use for solar electrical power generation from 2022 to 2045.

2.2. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to use for onshore wind electrical power generation from 2022 to 2045.

2.3. All writings used to calculate the area of California territorial offshore waters that will be converted to use for offshore wind electrical power generation from 2022 to 2045.

2.4. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California and the area of California territorial offshore waters that will be converted to use for electrical power transmission from 2022 to 2045.

2.5. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to carbon dioxide removal ("CDR") use from 2022 to 2045.

2.5.1. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to CDR capture facility use from 2022 to 2045.

2.5.2. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to CDR conveyance use from 2022 to 2045.

2.5.3. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to CDR storage use from 2022 to 2045.

2.5.4. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to CDR energy supply use from 2022 to 2045.

2.6. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to carbon capture sequestration ("CCS") use from 2022 to 2045.

2.6.1. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to CCS conveyance use from 2022 to 2045.

2.6.2. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to CCS storage use from 2022 to 2045.

2.6.3. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to CCS energy supply use from 2022 to 2045.

2.7. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to electrical power storage use from 2022 to 2045.

2.8. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to hydrogen use from 2022 to 2045.

2.8.1. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to hydrogen production from 2022 to 2045.

2.8.2. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to hydrogen distribution from 2022 to 2045.

2.8.3. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to hydrogen storage from 2022 to 2045.

2.8.4. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to hydrogen energy supply use from 2022 to 2045.

2.9. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to biofuel energy (biomethane, liquid biofuels and biomass) use from 2022 to 2045.

2.9.1. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to growing and harvesting trees and crops for biofuel use from 2022 to 2045.

2.9.2. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to processing organic waste for biofuels from 2022 to 2045.

2.9.3. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to biofuel distribution use from 2022 to 2045.

2.9.4. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to biofuel storage use from 2022 to 2045.

2.9.5. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to energy production for biofuels from 2022 to 2045.

2.10. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to waste management and recycling use from 2022 to 2045.

2.10.1. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to electrical generation waste management and recycling from 2022 to 2045.

2.10.2. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to animal and vegetation waste management use from 2022 to 2045.

2.10.3. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to waste management and recycling storage from 2022 to 2045.

2.10.4. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 in California that will be converted to energy production for waste management and recycling from 2022 to 2045.

2.11. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California that will be converted to use for solar electrical power generation from 2022 to 2045.

2.12. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California that will be converted to use for onshore wind electrical power generation from 2022 to 2045.

2.13. All writings used to calculate the area outside of California territorial offshore waters that will be converted to use for offshore wind electrical power generation from 2022 to 2045.

2.14. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California and outside of California territorial offshore waters that will be converted to use for electrical power transmission from 2022 to 2045.

2.15. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California that will be converted to CDR use from 2022 to 2045.

2.16. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California that will be converted to CCS use from 2022 to 2045.

2.17. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California that will be converted to electrical power storage use from 2022 to 2045.

2.18. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California that will be converted to hydrogen use from 2022 to 2045.

2.19. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California that will be converted to biofuel energy (biomethane, liquid biofuels and biomass) use from 2022 to 2045.

2.20. All writings used to calculate the acreage of natural and working lands by land "sector" as listed in 2022 Draft Scoping Plan Table 2-3 outside of California that will be converted to waste management and recycling use from 2022 to 2045.

3. 2022 Draft Scoping Plan Water Use

3.1. All writings used to calculate the amount of water supplies required to achieve the GHG emission reductions in the "Proposed Scenario" shown in 2022 Draft Scoping Plan Figure 2-1 from "AB 32 GHG Inventory sectors" and "NWL sectors," including any water use in a "Reference Scenario," a "BAU Reference" scenario or a "BAU" scenario from 2022 to 2045.

3.2. All writings used to calculate the daily, monthly and annual water demand for hydrogen production from 2022 to 2045.

3.2.1. All writings used to calculate the sources by type and source water quality of water used for hydrogen production from 2022 to 2045.

3.2.2. All writings used to calculate the water conveyance facilities required to supply water for hydrogen production from 2022 to 2045.

3.2.3. All writings used to calculate the energy required to supply water for hydrogen production from 2022 to 2045.

3.2.4. All writings used to calculate the costs of water supply for hydrogen production from 2022 to 2045.

3.3. All writings used to calculate the daily, monthly and annual water demand for installing, operating, maintaining and decommissioning electrical generation, distribution and storage equipment in California from 2022 to 2045.

3.3.1. All writings used to calculate the sources by type and source water quality of water used for installing, operating, maintaining and decommissioning electrical generation, distribution and storage equipment from 2022 to 2045.

3.3.2. All writings used to calculate the water conveyance facilities required to supply water for installing, operating, maintaining and decommissioning electrical generation, distribution and storage equipment from 2022 to 2045.

3.3.3. All writings used to calculate the energy required to supply water for installing, operating, maintaining and decommissioning electrical generation, distribution and storage equipment from 2022 to 2045.

3.3.4. All writings used to calculate the costs of water supply for installing, operating, maintaining and decommissioning electrical generation, distribution and storage equipment hydrogen production from 2022 to 2045.

3.4. All writings used to calculate the daily, monthly and annual water demand for "2–2.5 million acres treated statewide annually in forests, shrublands/chaparral, and grasslands" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.4.1. All writings used to calculate the sources by type and source water quality of water used for "2–2.5 million acres treated statewide annually in forests, shrublands/chaparral, and grasslands" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.4.2. All writings used to calculate the water conveyance facilities required to achieve "2–2.5 million acres treated statewide annually in forests, shrublands/chaparral, and grasslands" referenced in 2022 Draft Scoping Plan Table 2-3 from for hydrogen production from 2022 to 2045.

3.4.3. All writings used to calculate the energy required to supply water for "2–2.5 million acres treated statewide annually in forests, shrublands/chaparral, and grasslands" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.4.4. All writings used to calculate the costs of water supply for "2–2.5 million acres treated statewide annually in forests, shrublands/chaparral, and grasslands" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.5. All writings used to calculate the daily, monthly and annual water demand for "climate smart practices for annual and perennial crops on ~50,000 acres annually" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.5.1. All writings used to calculate the sources by type and source water quality of water used for "climate smart practices for annual and perennial crops on ~50,000 acres annually" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.5.2. All writings used to calculate the water conveyance facilities required to achieve "climate smart practices for annual and perennial crops on ~50,000 acres annually" referenced in 2022 Draft Scoping Plan Table 2-3 from for hydrogen production from 2022 to 2045.

3.5.3. All writings used to calculate the energy required to supply water for "climate smart practices for annual and perennial crops on ~50,000 acres annually" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.5.4. All writings used to calculate the costs of water supply for "climate smart practices for annual and perennial crops on ~50,000 acres annually" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.6. All writings used to calculate the daily, monthly and annual water demand for "organic agriculture …[on] 20% of all cultivated acres by 2045 (~65,000 acres annually)" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.6.1. All writings used to calculate the sources by type and source water quality of water used for "organic agriculture …[on] 20% of all cultivated acres by 2045 (~65,000 acres annually)" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.6.2. All writings used to calculate the water conveyance facilities required to achieve "organic agriculture …[on] 20% of all cultivated acres by 2045 (~65,000 acres annually)" referenced in 2022 Draft Scoping Plan Table 2-3 from for hydrogen production from 2022 to 2045.

3.6.3. All writings used to calculate the energy required to supply water for "organic agriculture …[on] 20% of all cultivated acres by 2045 (~65,000 acres annually)" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.6.4. All writings used to calculate the costs of water supply for "organic agriculture …[on] 20% of all cultivated acres by 2045 (~65,000 acres annually)" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.7. All writings used to calculate the daily, monthly and annual water demand for an "Urban forestry investment increase of 20% above current levels" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.7.1. All writings used to calculate the sources by type and source water quality of water used for an "Urban forestry investment increase of 20% above current levels" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.7.2. All writings used to calculate the water conveyance facilities required to achieve an "Urban forestry investment increase of 20% above current levels" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.7.3. All writings used to calculate the energy required to supply water for an "Urban forestry investment increase of 20% above current levels" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

3.7.4. All writings used to calculate the costs of water supply for an "Urban forestry investment increase of 20% above current levels" referenced in 2022 Draft Scoping Plan Table 2-3 from 2022 to 2045.

4. Affordable Housing

4.1. All writings used to calculate the land cost of infill housing development in California from 2022 to 2045.

4.2. All writings used to calculate the construction cost of infill housing development from 2022 to 2045.

4.3. All writings used to calculate total per-unit rental housing development costs by size and type for infill housing development from 2022 to 2045.

4.4. All writings used to calculate total per unit for-sale housing development costs by size and type for infill housing development from 2022 to 2045.

4.5. All writings used to calculate the per unit residential rent of by size and type of housing unit for infill housing development from 2022 to 2045.

4.6. All writings used to calculate the per unit residential purchase price of by size and type of housing unit for infill housing development from 2022 to 2045.

4.7. All writings used to calculate the historical affordability of infill housing in California from 2008 to 2022.

4.7.1. All writings used to calculate the affordability of infill housing rental costs by household income in California from 2008 to 2022.

4.7.2. All writings used to calculate the affordability of infill housing purchase costs by household income in California from 2008 to 2022.

4.7.3. All writings used to calculate the affordability of infill housing rental costs by race in California from 2008 to 2022.

4.7.4. All writings used to calculate the affordability of infill housing purchase costs by housing income group in California from 2008 to 2022.

4.7.5. All writings used to calculate home ownership rates for infill housing by household income in California from 2008 to 2022.

4.7.6. All writings used to calculate home ownership rates for infill housing by race in California from 2008 to 2022.

4.7.7. All writings used to calculate the net worth of renter households by income in California from 2008 to 2022.

4.7.8. All writings used to calculate the net worth of renter households by race in California from 2008 to 2022.

4.7.9. All writings used to calculate the net worth of home-owning households by income in California from 2008 to 2022.

4.7.10. All writings used to calculate the net worth of home-owning households by race in California from 2008 to 2022.

4.8. All writings used to calculate the historical affordability of housing in locations that prioritize infill development and restrict non-infill housing growth in comparison with locations that allow non-infill housing development from 2008 to 2022.

4.8.1. All writings used to calculate the relative cost of developing infill housing in locations that prioritize infill development and restrict non-infill housing growth in comparison with locations that allow non-infill housing development from 2008 to 2022.

4.8.2. All writings used to calculate the affordability of rental housing by household income group in locations that prioritize infill development and restrict non-infill housing growth in comparison with locations that allow non-infill housing development from 2008 to 2022.

4.8.3. All writings used to calculate the affordability of rental housing by race in locations that prioritize infill development and restrict non-infill housing growth in comparison with locations that allow non-infill housing development from 2008 to 2022.

4.8.4. All writings used to calculate the affordability of for-sale housing by household income group in locations that prioritize infill development and restrict non-infill housing growth in comparison with locations that allow non-infill housing development from 2008 to 2022.

4.8.5. All writings used to calculate the affordability of for-sale housing by race in locations that prioritize infill development and restrict non-infill housing growth in comparison with locations that allow non-infill housing development from 2008 to 2022.

4.9. All writings used to calculate the affordability of infill housing in California from 2022 to 2045.

4.9.1. All writings used to calculate the affordability of infill housing rental costs by household income in California from 2022 to 2045.

4.9.2. All writings used to calculate the affordability of infill housing purchase costs by household income in California from 2022 to 2045.

4.9.3. All writings used to calculate the affordability of infill housing rental costs by race in California from 2022 to 2045.

4.9.4. All writings used to calculate the affordability of infill housing purchase costs by household income in California from 2022 to 2045.

4.9.5. All writings used to calculate home ownership rates for infill housing by household income in California from 2022 to 2045.

4.9.6. All writings used to calculate home ownership rates for infill housing by race in California from 2022 to 2045.

4.9.7. All writings used to calculate the net worth of renter households by household income in California from 2022 to 2045.

4.9.8. All writings used to calculate the net worth of renter households by race in California from 2022 to 2045.

4.9.9. All writings used to calculate the net worth of home-owning households by income in California from 2022 to 2045.

4.9.10. All writings used to calculate the net worth of home-owning households by race in California from 2022 to 2045.

4.10. All writings used to calculate the number of affordable housing units required in California from 2022 to 2045.

4.10.1. All writings used to define the criteria used to define "affordable housing" referenced in the 2022 Draft Scoping Plan and in Scoping Plan Appendix E and Scoping Plan Appendix G.

4.10.2. All writings used to calculate the number of affordable housing units in California in 2022.

4.10.3. All writings used to calculate the number of affordable housing units in California from 2022 to 2045.

4.11. All writings used to calculate the cost of building affordable housing in California from 2022 to 2045.

4.11.1. All writings used to calculate the amount of public funding for building affordable housing in California from 2022 to 2045.

4.11.2. All writings used to calculate the amount of public funding for renting affordable housing in California from 2022 to 2045.

4.11.3. All writings used to calculate the amount of public funding for purchasing affordable housing in California from 2022 to 2045

5. Buildings

5.1. All writings used to calculate the cost of the all-electric retrofit of existing residential structures from 2022 to 2045.

5.1.1. All writings used to calculate the cost of the all-electric retrofit of existing attached and detached single family homes from 2022 to 2045.

5.1.2. All writings used to calculate the cost of the all-electric retrofit of existing mid-rise multi-family apartments and condominiums (6 stories or less of occupied dwelling units) from 2022 to 2045.

5.1.3. All writings used to calculate the cost of the all-electric retrofit of existing high-rise multi-family apartments and condominiums (higher than 6 stories).

5.2. All writings used to calculate the GHG reductions from the all-electric retrofit of existing residential structures from 2022 to 2045.

5.2.1. All writings used to calculate the GHG reductions from the all-electric retrofit of existing attached and detached single family homes from 2022 to 2045.

5.2.2. All writings used to calculate the GHG reductions from the all-electric retrofit of existing mid-rise multi-family apartments and condominiums (6 stories or less of occupied dwelling units) from 2022 to 2045.

5.2.3. All writings used to calculate the GHG reductions from the all-electric retrofit of existing high-rise multi-family apartments and condominiums (higher than 6 stories).

5.2.4. Documentation regarding cost and GHG reductions from all-electric retrofit of existing commercial structures, including but not limited to by structure type e.g., , , gym, K-14 school, hospital, office, life sciences, ski resort, amusement park, spa, studio, major league sports venue, theaters

5.3. All writings used to calculate the cost of the all-electric retrofit of existing commercial structures from 2022 to 2045.

5.3.1. All writings used to calculate the cost of the all-electric retrofit of existing restaurants from 2022 to 2045.

5.3.2. All writings used to calculate the cost of the all-electric retrofit of retail structures from 2022 to 2045.

5.3.3. All writings used to calculate the cost of the all-electric retrofit of existing hotels from 2022 to 2045.

5.3.4. All writings used to calculate the cost of the all-electric retrofit of existing gyms from 2022 to 2045.

5.3.5. All writings used to calculate the cost of the all-electric retrofit of existing K-14 schools from 2022 to 2045.

5.3.6. All writings used to calculate the cost of the all-electric retrofit of existing hospitals from 2022 to 2045.

5.3.7. All writings used to calculate the cost of the all-electric retrofit of existing office buildings from 2022 to 2045.

5.3.8. All writings used to calculate the cost of the all-electric retrofit of existing hospitals and medical buildings from 2022 to 2045.

5.3.9. All writings used to calculate the cost of the all-electric retrofit of existing recreational structures (e.g., ski resorts, amusement parks, sports venues, theaters, spas from 2022 to 2045.

5.3.10. All writings used to calculate the cost of the all-electric retrofit of existing life sciences buildings from 2022 to 2045.

5.3.11. All writings used to calculate the cost of the all-electric retrofit of existing studios from 2022 to 2045.

5.4. All writings used to calculate the GHG reductions from the all-electric retrofit of existing commercial structures from 2022 to 2045.

5.4.1. All writings used to calculate the GHG reductions from the all-electric retrofit of existing restaurants from 2022 to 2045.

5.4.2. All writings used to calculate the GHG reductions from the all-electric retrofit of retail structures from 2022 to 2045.

5.4.3. All writings used to calculate the GHG reductions from the all-electric retrofit of existing hotels from 2022 to 2045.

5.4.4. All writings used to calculate the GHG reductions from the all-electric retrofit of existing gyms from 2022 to 2045.

5.4.5. All writings used to calculate the GHG reductions from the all-electric retrofit of existing K-14 schools from 2022 to 2045.

5.4.6. All writings used to calculate the GHG reductions from the all-electric retrofit of existing hospitals from 2022 to 2045.

5.4.7. All writings used to calculate the GHG reductions from the all-electric retrofit of existing office buildings from 2022 to 2045.

5.4.8. All writings used to calculate the GHG reductions from the all-electric retrofit of existing hospitals and medical buildings from 2022 to 2045.

5.4.9. All writings used to calculate the GHG reductions from the all-electric retrofit of existing recreational structures (e.g., ski resorts, amusement parks, sports venues, theaters, spas from 2022 to 2045.

5.4.10. All writings used to calculate the GHG reductions from the all-electric retrofit of existing life sciences buildings from 2022 to 2045.

5.4.11. All writings used to calculate the GHG reductions from the all-electric retrofit of existing studios from 2022 to 2045

5.5. All writings used to calculate the annual number amount of residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks from 2022 to 2045 for the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan.

5.6. All writings used to calculate the cost of the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks from 2022 to 2045 for the number of units shown for the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan.

5.7. All writings used to calculate the GHG reductions that will be achieved by the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks from 2022 to 2045 by installing the equipment identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan.

5.8. All writings used to calculate the cost per household by household income to purchase the residential space heating stocks, residential water heating stocks, residential clothes drying stocks and residential cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.9. All writings used to calculate the cost per household by household race to purchase the residential space heating stocks, residential water heating stocks, residential clothes drying stocks identified and residential cooking stocks in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.10. All writings used to calculate the cost per household by household income to purchase the commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.11. All writings used to calculate the cost per household by household race to purchase the commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in

each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.12. All writings used to calculate the locations and quantities of raw material resources required to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.13. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.14. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.15. All writings used to calculate the locations, capacity and size of the material processing facilities to produce to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.16. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-

PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.17. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.18. All writings used to calculate the locations, capacity and size of component manufacturing facilities required to manufacture all physical components in the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.19. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.20. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.21. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks,

commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.22. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.23. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final manufacturing and assembly facilities to California to supply the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.24. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.25. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.26. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

5.27. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver the residential space heating stocks, residential water heating stocks, residential clothes drying stocks, residential cooking stocks, commercial space heating stocks, commercial water heating stocks, and commercial cooking stocks identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

6. Hydrogen

6.1. All writings used to calculate the installed capacity of hydrogen production in California from 2022 to 2045.

6.2. All writings used to calculate the net change in the installed capacity of hydrogen production in California from 2022 to 2045.

6.3. All writings used to calculate the acreage of instate hydrogen production capacity installed from 2022 to 2045.

6.4. All writings used to calculate the locations of instate hydrogen capacity installed from 2022 to 2045.

6.5. All writings used to calculate the acreage of out of state hydrogen production capacity installed from 2022 to 2045.

6.6. All writings used to calculate the locations of out of state hydrogen production capacity installed from 2022 to 2045.

6.7. All writings used to calculate the installed capacity of hydrogen distribution in California from 2022 to 2045.

6.8. All writings used to calculate the net change in the installed capacity of hydrogen distribution in California from 2022 to 2045.

6.9. All writings used to calculate the acreage of instate hydrogen distribution capacity installed from 2022 to 2045.

6.10. All writings used to calculate the locations of instate hydrogen capacity installed from 2022 to 2045.

6.11. All writings used to calculate the acreage of out of state hydrogen distribution capacity installed from 2022 to 2045.

6.12. All writings used to calculate the locations of out of state hydrogen distribution capacity installed from 2022 to 2045.

6.13. All writings used to calculate the installed capacity of hydrogen storage in California from 2022 to 2045.

6.14. All writings used to calculate the net change in the installed capacity of hydrogen storage in California from 2022 to 2045.

6.15. All writings used to calculate the acreage of instate hydrogen storage capacity installed from 2022 to 2045.

6.16. All writings used to calculate the locations of instate hydrogen capacity installed from 2022 to 2045.

6.17. All writings used to calculate the acreage of out of state hydrogen storage capacity installed from 2022 to 2045.

6.18. All writings used to calculate the locations of out of state hydrogen storage capacity installed from 2022 to 2045.

6.19. All writings used to calculate the demand for hydrogen in California from 2022 to 2045.

6.19.1. All writings used to calculate the number and demand of light duty vehicles using hydrogen in California from 2022 to 2045.

6.19.2. All writings used to calculate the number and demand of medium duty vehicles using hydrogen in California from 2022 to 2045.

6.19.3. All writings used to calculate the number and demand of heavy duty vehicles using hydrogen in California from 2022 to 2045.

6.19.4. All writings used to calculate by type the demand of other ground and ocean going transportation vehicles and related equipment using hydrogen in California from 2022 to 2045.

6.19.5. All writings used to calculate by type the demand of other aviation transportation aircraft and related equipment using hydrogen in California from 2022 to 2045.

6.19.6. All writings used to calculate the number by type and demand of residential building equipment using hydrogen in California from 2022 to 2045.

6.19.7. All writings used to calculate the number by type and demand of commercial building equipment using hydrogen in California from 2022 to 2045.

6.19.8. All writings used to calculate the number by type and demand of industrial operations and building equipment using hydrogen in California from 2022 to 2045.

6.19.9. All writings used to calculate the number by type and demand of construction equipment using hydrogen in California from 2022 to 2045.

6.19.10. All writings used to calculate all other demands in California from 2022 to 2045.

6.20. All writings used to calculate the amount of hydrogen storage, distribution and end user fuel supply equipment, (e.g., tanks, pipelines, compressors, pumps, temperature regulators, fueling stations, safety equipment) for hydrogen in California from 2022 to 2045.

6.20.1. All writings used to calculate the amount of hydrogen storage, distribution and end user fuel supply equipment required for light duty vehicles using hydrogen in California from 2022 to 2045.

6.20.2. All writings used to calculate the hydrogen storage, distribution and end user fuel supply equipment required for medium duty vehicles using hydrogen in California from 2022 to 2045.

6.20.3. All writings used to calculate the hydrogen storage, distribution and end user fuel supply equipment required for heavy duty vehicles using hydrogen in California from 2022 to 2045.

6.20.4. All writings used to calculate the hydrogen storage, distribution and end user fuel supply equipment required for other ground and ocean going transportation vehicles and related equipment using hydrogen in California from 2022 to 2045.

6.20.5. All writings used to calculate the hydrogen storage, distribution and end user fuel supply equipment required for aviation transportation aircraft and related equipment using hydrogen in California from 2022 to 2045.

6.20.6. All writings used to calculate the hydrogen storage, distribution and end user fuel supply equipment required for residential building equipment using hydrogen in California from 2022 to 2045.

6.20.7. All writings used to calculate the hydrogen storage, distribution and end user fuel supply equipment required for commercial building equipment using hydrogen in California from 2022 to 2045.

6.20.8. All writings used to calculate the hydrogen storage, distribution and end user fuel supply equipment required for industrial operations and building equipment using hydrogen in California from 2022 to 2045.

6.20.9. All writings used to calculate the hydrogen storage, distribution and end user fuel supply equipment required for construction equipment using hydrogen in California from 2022 to 2045.

6.21. All writings used to calculate the energy demand for hydrogen production, storage and distribution in California from 2022 to 2045.

6.21.1. All writings used to calculate the daily, monthly and annual energy demand for hydrogen production, storage and distribution in California from 2022 to 2045.

6.21.2. All writings used to calculate the sources of energy supply for the daily, monthly and annual energy demand for hydrogen production, storage and distribution in California from 2022 to 2045.

6.21.3. All writings used to calculate the locations by type of energy supply resources for the daily, monthly and annual energy demand for hydrogen production, storage and distribution in California from 2022 to 2045.

6.21.4. All writings used to calculate the acreage by location and of energy supply resources for the daily, monthly and annual energy demand for hydrogen production, storage and distribution in California from 2022 to 2045.

6.22. All writings used to calculate the cost of hydrogen production capacity and related equipment in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.23. All writings used to calculate the cost of hydrogen storage capacity and related equipment in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.24. All writings used to calculate the cost of hydrogen distribution capacity and related equipment in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.25. All writings used to calculate the cost of hydrogen production, storage and distribution energy demand in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.26. All writings used to calculate the cost of hydrogen production water supply in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.27. All writings used to calculate the cost of hydrogen production capacity and related equipment in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.28. All writings used to calculate the cost of hydrogen storage capacity and related equipment in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.29. All writings used to calculate the cost of hydrogen distribution capacity and related equipment in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.30. All writings used to calculate the cost of hydrogen production, storage and distribution energy demand in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.31. All writings used to calculate the cost of hydrogen production, storage and distribution water supply in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.32. All writings used to calculate the retail cost of hydrogen in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.33. All writings used to calculate the commercial cost of hydrogen in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.34. All writings used to calculate the industrial cost of hydrogen in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.35. All writings used to calculate the wholesale cost of hydrogen in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.36. All writings used to calculate the retail cost of hydrogen in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.37. All writings used to calculate the commercial cost of hydrogen in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.38. All writings used to calculate the industrial cost of hydrogen in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

6.39. All writings used to calculate the wholesale cost of hydrogen in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.40. All writings used to calculate the cost of public subsidies for hydrogen in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.41. All writings used to calculate the cost of public subsidies for hydrogen in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.42. All writings used to calculate the locations and quantities of raw material resources required to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.43. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.44. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.45. All writings used to calculate the locations, capacity and size of the material processing facilities to produce to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 204..

6.46. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.47. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.48. All writings used to calculate the locations, capacity and size of component manufacturing facilities required to manufacture all physical components in hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.49. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.50. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.51. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045 from 2022 to 2045.

6.52. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.53. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final manufacturing and assembly facilities to California to supply hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.54. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce

hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.55. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.56. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

6.57. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver hydrogen production, storage, and distribution equipment, vehicles using hydrogen, building equipment using hydrogen, and industrial equipment using hydrogen from 2022 to 2045.

We note that this request reasonably describes the writings sought through their content contained therein and therefore, reasonably describes identifiable writings and information related figures and tables presented in the foregoing documents.[3] We request that such responsive records be made promptly available in an electronic format (CD, USB Drive, or Shared File Site, such as DropBox).[4] If there are hard copies that are not currently stored in an electronic format, we will arrange to inspect these documents in your office and arrange for copies to be made.

We note that the attorney-client privilege does not apply to management decisions made by lawyers serving in management roles. If you elect to assert either the attorney-client or deliberative process privilege for any documentation that is otherwise responsive to this request, we ask that you expressly disclose reliance on such a privilege claim that we can seek timely judicial review of your failure to disclose all responsive documents.

[3] Gov. Code § 6257; *Cal. First Amendment Coalition v. Superior Court* (1998) 67 Cal.App.4th 159.
[4] *See e.g.,* 88 Ops.Cal.Atty.Gen. 153, pp. 12-13 (2005) (reinforcing the requirement that government agencies make identifiable public records promptly available); 89 Ops.Cal.Atty.Gen. 39, p. 3 (2006) (same).

Please do not hesitate to contact Paloma Perez-McEvoy (*paloma.perez-mcevoy@hklaw.com*) if you have any initial questions about the foregoing request. We look forward to your timely transmittal of all responsive documentation. Thank you.

Sincerely yours,

HOLLAND & KNIGHT LLP

Jennifer L. Hernandez

cc: Richard Corey, CARB Executive Officer (rcorey@arb.ca.gov)

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June 14, 2022

Via Email

California Air Resources Board Public Records Coordinator
Office of Legal Affairs
1001 I Street
Sacramento, CA 95814
prareqst@arb.ca.gov

Re: California Public Records Act Request for Information and Data Related to the 2022 Scoping Plan Update

Dear California Air Resources Board Public Records Coordinator:

Pursuant to the California Public Records Act ("CPRA") (Gov. Code § 6250 *et seq.*), this request seeks public records[1] related to the California Air Resources Board's ("CARB") 2022 Draft Scoping Plan Update and its supporting documentation. Specifically, this request seeks public records that support the findings and conclusions presented in the figures, tables and slides presented in (1) the 2022 Draft Scoping Plan document; (2) its appendices; and (3) the AB 32 GHG Inventory Sectors Modeling Data Spreadsheet published by CARB with the 2022 Draft Scoping Plan ("2022-draft-SP-PATHWAYS-data-E3").[2]

[1] A "public record" encompasses any information relating to the discharge of an official duty. *See e.g, Braun v. Taft* (1984) 154 Cal.App.3d 332, 340; *San Gabriel Tribune v. Superior Court* (1983) 143 Cal.App.3d 762, 774. The CPRA broadly defines "public records" as any **writing** containing information relating to the conduct of the public's business prepared, owned, used, or retained by any state or local agency regardless of physical form or characteristics. Gov. Code § 6252(e). The term "writing" has also been broadly defined in a manner that does not pay regard to the writing's physical form or characteristics (handwritten, typed, electronic, or otherwise reproduced, or stored), and includes but is not limited to: written documents, photographs, photocopies, facsimiles, text messages, emails, and writings that are within a public agency's constructive possession. Gov. Code § 6252(e) & (g); *City of San Jose v. Superior Court* (2017) 2 Cal.5th 608, 623.

[2] Available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fww2.arb.ca.gov%2Fsites%2Fdefault%2Ffiles%2F2022-05%2F2022-draft-sp-PATHWAYS-data-E3.xlsx&wdOrigin=BROWSELINK (accessed June 8, 2022).

The public records sought have been grouped into five major topic areas that describe certain writings sought to support the findings in the foregoing materials. Below each heading is a description of the writings and information sought pursuant to this CPRA request.

1. Leakage and CCS

1.1. All writings used to calculate greenhouse gas ("GHG") emission "leakage"[3] from California to other states or countries related to any activity or source from 2008 to 2022.

1.1.1. All writings used to calculate manufacturing industry leakage for any goods or products from California to other states or countries from 2008 to 2022.

1.1.2. All writings used to calculate fossil fuel exploration and production industry leakage from California to other states or countries from 2008 to 2022.

1.1.3. All writings used to calculate fossil fuel refining leakage from California to other states or countries from 2008 to 2022.

1.1.4. All writings used to calculate agricultural production leakage, including meat, fish, dairy and plant production, from California to other states or countries from 2008 to 2022.

1.1.5. All writings used to calculate building materials production leakage, including wood, metals, glass, textiles, and paper, concrete, cement, from California to other states or countries from 2008 to 2022.

1.1.6. All writings used to calculate transportation vehicle production leakage, including light, medium and heavy duty electric vehicle ("EV"), Plug-in Hybrid Electric Vehicle ("PHEV"), internal combustion engine ("ICE"), hybrid and hydrogen vehicle production, from California to other states or countries from 2008 to 2022.

1.1.7. All writings used to calculate transit, freight, construction and industrial vehicle production leakage, including EV, PHEV, ICEs, hybrid and hydrogen transit, freight, construction and industrial vehicle production, from California to other states or countries from 2008 to 2022.

1.1.8. All writings used to calculate renewable energy equipment production leakage, including solar, wind and battery storage equipment, from California to other states or countries from 2008 to 2022.

[3] "Leakage" is defined as a "reduction in emissions in greenhouse gases within the state that is offset by an increase in emissions of greenhouse gases outside the state." 2022 Draft Scoping Plan, p. 79.

1.1.9. All writings used to calculate leakage related to population movement from California to other states or countries from 2008 to 2022.

1.2. All writings used to calculate GHG emission "leakage" from California to other states or countries related to any activity or source from 2022 to 2045.

1.2.1. All writings used to calculate manufacturing industry leakage for any goods or products from California to other states or countries from 2022 to 2045.

1.2.2. All writings used to calculate fossil fuel exploration and production industry leakage from California to other states or countries from 2022 to 2045.

1.2.3. All writings used to calculate fossil fuel refining leakage from California to other states or countries from 2022 to 2045.

1.2.4. All writings used to calculate agricultural production leakage, including meat, fish, dairy and plant production, from California to other states or countries from 2022 to 2045.

1.2.5. All writings used to calculate building materials production leakage, including wood, metals, glass, textiles, and paper, concrete, cement, from California to other states or countries from 2022 to 2045.

1.2.6. All writings used to calculate transportation vehicle production leakage, including light, medium and heavy duty EV, PHEV, ICE, hybrid and hydrogen vehicle production, from California to other states or countries from 2022 to 2045.

1.2.7. All writings used to calculate transit, freight, construction and industrial vehicle production leakage, including EV, PHEV, ICE, hybrid and hydrogen transit, freight, construction and industrial vehicle production, from California to other states or countries from 2022 to 2045.

1.2.8. All writings used to calculate renewable energy equipment production leakage, including solar, wind and battery storage equipment, from California to other states or countries from 2022 to 2045.

1.2.9. All writings used to calculate leakage related to population movement from California to other states or countries from 2022 to 2045.

1.3. All writings used to identify and select carbon capture sequestration ("CCS") use and determine CCS offset eligibility by specific industry and GHG emission source to "minimize leakage"[4] or for any other reason from 2022 to 2045.

[4] *See* Draft 2022 Scoping Plan, p. 79.

1.3.1. All writings used to identify and select petroleum refining for CCS use.

1.3.1.1. All writings used to identify the amount of GHG emission leakage that will be avoided from 2022 to 2045 by requiring CCS use in petroleum refining.

1.3.1.2. All writings used to identify the specific petroleum refining activities that will use CCS.

1.3.1.3. All writings used to identify the implementation schedule for petroleum refining CCS use.

1.3.1.4. All writings used to calculate the cost of CCS for petroleum refining from 2022 to 2045.

1.3.1.4.1. All writings used to calculate the cost of CCS equipment, including capture, compression, pipeline conveyance, and long-term storage equipment and facilities, for petroleum refining from 2022 to 2045.

1.3.1.4.2. All writings used to calculate the cost of CCS permitting, mitigation, capital and operating costs for petroleum refining from 2022 to 2045.

1.3.1.4.3. All writings used to calculate the additional cost of retail, commercial, industrial and wholesale gasoline, diesel, aviation fuel, hydrogen, and other refinery products used in California due to the cost of using CCS for petroleum refining from 2022 to 2045.

1.3.1.4.4. All writings used to calculate the additional cost of durable and non-durable goods and agricultural production in California by type of good and production due to increases in the cost of instate refined petroleum products using CCS from 2022 to 2045.

1.3.1.4.5. All writings used to calculate the additional cost of vehicular transportation and equipment use in California by type due to increases in the cost of instate refined petroleum products using CCS from 2022 to 2045.

1.3.1.4.6. All writings used to calculate the additional cost of goods, services and agricultural products in California by type due to increases in the cost of instate refined petroleum products using CCS from 2022 to 2045.

1.3.1.4.7. All writings used to calculate the amount of goods, services, agricultural production and population that will relocate to other states or countries in California due to increases in the cost of instate refined petroleum products using CCS from 2022 to 2045.

1.3.1.4.8. All writings used to calculate the net change in gross state product and employment by sector due to increases in the cost of instate refined petroleum products using CCS from 2022 to 2045.

1.3.1.4.9. All writings used to calculate the net change in local tax revenues due to increases in the cost of instate refined petroleum products using CCS from 2022 to 2045.

1.3.2. All writings used to identify and select cement production for CCS use.

1.3.2.1. All writings used to identify the amount of GHG emission leakage that will be avoided from 2022 to 2045 by selecting cement production for CCS use.

1.3.2.2. All writings used to identify the specific cement production activities that will use CCS.

1.3.2.3. All writings used to identify the implementation schedule for cement production CCS use.

1.3.2.4. All writings used to calculate the cost of CCS for cement production from 2022 to 2045.

1.3.2.4.1. All writings used to calculate the cost of CCS equipment, including capture, compression, pipeline conveyance, and long-term storage equipment and facilities, for cement production from 2022 to 2045.

1.3.2.4.2. All writings used to calculate the cost of CCS permitting, mitigation, capital and operating costs for cement production from 2022 to 2045.

1.3.2.4.3. All writings used to calculate the additional cost of residential, commercial and industrial building, renewable energy facility, transportation and utility infrastructure and other public and private construction in California due to the cost of using CCS for cement production from 2022 to 2045.

1.3.2.4.4. All writings used to calculate the amount of goods, services, agricultural production and population that will relocate to other states or countries in California due to increases in the cost of instate cement production using CCS from 2022 to 2045.

1.3.2.4.5. All writings used to calculate the net change in gross state product and employment by sector due to increases in the cost of cement production using CCS from 2022 to 2045.

1.3.2.4.6. All writings used to calculate the net change in local tax revenues due to increases in the cost of instate refined cement production using CCS from 2022 to 2045.

1.3.3. All writings used to identify, evaluate, and determine not to select industries other than petroleum refining and cement production for CCS use from 2022 to 2045.

1.3.3.1. All writings used to identify industries other than petroleum refining and cement production subject to potential GHG emission leakage from 2022 to 2045.

1.3.3.2. All writings used to identify the extent to which CCS would avoid potential GHG emission leakage in industries other than petroleum refining and cement production from 2022 to 2045.

1.3.3.3. All writings used to determine that no industries other than petroleum refining and cement production must use CCS to minimize leakage from 2022 to 2045.

2. Carbon Dioxide Removal ("CDR")

2.1. All writings used to calculate the total amount of GHG emissions in metric tons subject to feasible removal using carbon dioxide removal ("CDR"), by type of CDR, in California from 2022 to 2045.

2.2. All writings used to consider the use of CDR and eligibility for CDR offsets by specific GHG emission sources from 2022 to 2045.

2.3. All writings used to identify the GHG emission sources determined to be eligible to use CDR and CDR offsets, by specific source and type of CDR, from 2022 to 2045.

2.4. All writings used to determine the GHG emission sources determined not to be eligible to use CDR and CDR offsets, by specific source and type of CDR, from 2022 to 2045.

2.5. All writings used to calculate the installed GHG removal capacity of CDR facilities in California from 2022 to 2045.

2.6. All writings used to calculate the net change in the installed capacity of GHG removal in California from 2022 to 2045.

2.7. All writings used to calculate the acreage of instate CDR removal capacity installed from 2022 to 2045.

2.8. All writings used to calculate the locations of instate CDR removal capacity installed from 2022 to 2045.

2.9. All writings used to calculate the acreage of out of state CDR removal capacity installed from 2022 to 2045.

2.10. All writings used to calculate the locations of out of state CDR removal capacity installed from 2022 to 2045.

2.11. All writings used to calculate the number and location of CDR capture facilities in California from 2022 to 2045.

2.12. All writings used to calculate the number and location of CDR post-capture emissions treatment (e.g., post capture compression, filtering, cooling) facilities in California from 2022 to 2045.

2.13. All writings used to calculate the number, size and location of CDR pumping and related transfer equipment other than pipelines in California from 2022 to 2045.

2.14. All writings used to calculate the number, size and location of CDR above-ground storage facilities in California from 2022 to 2045.

2.15. All writings used to calculate the number, size and location of CDR below-ground storage facilities in California from 2022 to 2045.

2.16. All writings used to calculate the energy demand for CDR in California from 2022 to 2045.

2.16.1. All writings used to calculate the daily, monthly and annual energy demand for CDR in California from 2022 to 2045.

2.16.2. All writings used to calculate the sources of energy supply for the daily, monthly and annual energy demand for CDR in California from 2022 to 2045.

2.16.3. All writings used to calculate the locations by type of energy supply resources for the daily, monthly and annual energy demand for CDR in California from 2022 to 2045.

2.16.4. All writings used to calculate the acreage by location and by type of energy supply for the daily, monthly and annual energy demand for CDR in California from 2022 to 2045.

2.17. All writings used to calculate the daily, monthly and annual water demand for CDR removal in California from 2022 to 2045.

2.17.1. All writings used to calculate the sources by type and source water quality of water used for CDR removal from 2022 to 2045.

2.17.2. All writings used to calculate the water conveyance facilities required to supply water for CDR removal from 2022 to 2045.

2.17.3. All writings used to calculate the energy required to supply water for CDR removal from 2022 to 2045.

2.18. All writings used to calculate the cost of CDR capture facilities and related equipment from 2022 to 2045.

2.19. All writings used to calculate the cost of CDR post-capture emissions treatment facilities and equipment from 2022 to 2045.

2.20. All writings used to calculate the cost of CDR pumping and related transfer equipment (other than pipelines) from 2022 to 2045.

2.21. All writings used to calculate the cost of CDR pipelines from 2022 to 2045.

2.22. All writings used to calculate the cost of CDR above-ground storage facilities from 2022 to 2045.

2.23. All writings used to calculate the cost of CDR below-ground storage facilities from 2022 to 2045.

2.24. All writings used to calculate the cost of CDR permitting, mitigation, capital and operating costs.

2.25. All writings used to calculate the cost of CDR monitoring and long-term emissions removal compliance and verification.

2.26. All writings used to calculate the amount of revenues required, and revenues paid by source of payment, to fund CDR deployment, operations, and long term monitoring and compliance costs from 2022 to 2045.

2.27. All writings used to calculate the locations and quantities of raw material resources required to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.28. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.29. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.30. All writings used to calculate the locations, capacity and size of the material processing facilities to produce to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.31. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.32. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.33. All writings used to calculate the locations, capacity and size of component manufacturing facilities required to manufacture all physical components in CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.34. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.35. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.36. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045 from 2022 to 2045.

2.37. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.38. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final

manufacturing and assembly facilities to California to supply CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.39. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.40. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.41. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

2.42. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver CDR capture, post-capture treatment, pumping and transfer, pipeline above and below ground storage and energy and water supply equipment from 2022 to 2045.

3. Transportation

3.1. All writings used to calculate the annual number amount of light-duty vehicle (“LDV”) stocks (battery electric vehicles (“BEV”), gasoline, hydrogen fuel cell, PHEV40), medium duty vehicle (“MDV”) stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, compressed natural gas (“CNG”) and hydrogen and cell fuel vehicles (“HFCV”)) from 2022 to 2045 for the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the Draft 2022 Scoping Plan.

3.2. All writings used to calculate the cost of the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) from 2022 to 2045 for the number of units shown for the "BAU Reference" and

"Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the Draft 2022 Scoping Plan.

3.3. All writings used to calculate the GHG reductions that will be achieved by the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) from 2022 to 2045 in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan.

3.4. All writings used to calculate the cost per household by household income to purchase the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.5. All writings used to calculate the cost per household by household race to purchase the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.6. All writings used to calculate the cost per household by household income to operate, including fuel, insurance and maintenance, the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.7. All writings used to calculate the cost per household by household race to operate, including fuel, insurance and maintenance, the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.8. All writings used to calculate the locations and quantities of raw material resources required to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40),

MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.9. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.10. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.11. All writings used to calculate the locations, capacity and size of the material processing facilities to produce to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.12. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.13. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to the LDV stocks (BEV,

gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.14. All writings used to calculate the locations, capacity and size of component manufacturing facilities required to manufacture all physical components the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.15. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.16. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.17. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.18. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40),

MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.19. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final manufacturing and assembly facilities to California to supply the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.20. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.21. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.22. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

3.23. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver the LDV stocks (BEV, gasoline, hydrogen fuel cell, PHEV40), MDV stocks (BEV, gasoline, diesel, hydrogen fuel cell), HDV stocks (BEV, CNG, diesel, hydrogen fuel cell) and bus stocks (BEV, gasoline, diesel, CNG and HFCV) identified in the "BAU Reference" and "Alt 3" scenarios in each applicable tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

4. Households

4.1. All writings used to calculate California household income from 2022 to 2045.

4.1.1. All writings used to calculate household food costs from 2022 to 2045.

4.1.1.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household food costs from 2022 to 2045.

4.1.2. All writings used to calculate household residential space and water heating, space cooling, and cooking equipment acquisition and installation costs from 2022 to 2045.

4.1.2.1. All writings used to calculate the amount of public, nonprofit and private assistance, subsidies and other funding for household residential space and water heating, space cooling, and cooking equipment acquisition and installation costs from 2022 to 2045.

4.1.3. All writings used to calculate household residential energy costs by energy type from 2022 to 2045.

4.1.3.1. All writings used to calculate the amount of public, nonprofit and private assistance, subsidies and other funding for household residential energy costs from 2022 to 2045.

4.1.4. All writings used to calculate household residential housing costs from 2022 to 2045.

4.1.4.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household residential housing costs from 2022 to 2045.

4.1.5. All writings used to calculate household electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicle acquisition and maintenance costs from 2022 to 2045.

4.1.5.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicle acquisition and maintenance costs from 2022 to 2045.

4.1.6. All writings used to calculate household transportation energy costs by energy type for electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles from 2022 to 2045.

4.1.6.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household transportation energy costs by energy type for electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles from 2022 to 2045

4.1.7. All writings used to calculate household transportation costs using means other than electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles, including public transportation and electric bicycles, scooters, skateboards and other unenclosed powered devices, from 2022 to 2045.

4.1.7.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household transportation costs using means other than electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles, including public transportation and electric bicycles, scooters, skateboards and other unenclosed powered devices, from 2022 to 2045.

4.1.8. All writings used to calculate household recreational travel costs from 2022 to 2045, including recreational travel by personal vehicle, commercial aviation, or other commercial means such as buses, boats, and rail from 2022 to 2045.

4.1.8.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household recreational travel costs 2022 to 2045.

4.2. All writings used to calculate California household income by household income group from 2022 to 2045.

4.2.1. All writings used to calculate household food costs by household income group from 2022 to 2045.

4.2.1.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household food costs by household income group from 2022 to 2045.

4.2.2. All writings used to calculate household residential space and water heating, space cooling, and cooking equipment acquisition and installation costs by household income group from 2022 to 2045.

4.2.2.1. All writings used to calculate the amount of public, nonprofit and private assistance, subsidies and other funding for household residential space and water heating, space cooling, and cooking equipment acquisition and installation costs by household income group from 2022 to 2045.

4.2.3. All writings used to calculate household residential energy costs by energy type by household income group from 2022 to 2045.

4.2.3.1. All writings used to calculate the amount of public, nonprofit and private assistance, subsidies and other funding for household residential energy costs by household income group from 2022 to 2045.

4.2.4. All writings used to calculate household residential housing costs by household income group from 2022 to 2045.

4.2.4.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household residential housing costs by household income group from 2022 to 2045.

4.2.5. All writings used to calculate household electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicle acquisition and maintenance costs by household income group from 2022 to 2045.

4.2.5.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicle acquisition and maintenance costs by household income group from 2022 to 2045.

4.2.6. All writings used to calculate household transportation energy costs by energy type for electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles by household income group from 2022 to 2045.

4.2.6.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household transportation energy costs by energy type for electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles by household income group from 2022 to 2045

4.2.7. All writings used to calculate household transportation costs using means other than electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles, including public transportation and electric bicycles,

scooters, skateboards and other unenclosed powered devices, by household income group from 2022 to 2045.

4.2.7.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household transportation costs using means other than electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles, including public transportation and electric bicycles, scooters, skateboards and other unenclosed powered devices, by household income group from 2022 to 2045.

4.2.8. All writings used to calculate household recreational travel costs by household income group from 2022 to 2045, including recreational travel by personal vehicle, commercial aviation, or other commercial means such as buses, boats, and rail by household income group from 2022 to 2045.

4.2.8.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household recreational travel costs 2022 to 2045.

4.3. All writings used to calculate California household income by ethnicity or race from 2022 to 2045.

4.3.1. All writings used to calculate household food costs by ethnicity or race from 2022 to 2045.

4.3.1.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household food costs by ethnicity or race from 2022 to 2045.

4.3.2. All writings used to calculate household residential space and water heating, space cooling, and cooking equipment acquisition and installation costs by ethnicity or race from 2022 to 2045.

4.3.2.1. All writings used to calculate the amount of public, nonprofit and private assistance, subsidies and other funding for household residential space and water heating, space cooling, and cooking equipment acquisition and installation costs by ethnicity or race from 2022 to 2045.

4.3.3. All writings used to calculate household residential energy costs by energy type by ethnicity or race from 2022 to 2045.

4.3.3.1. All writings used to calculate the amount of public, nonprofit and private assistance, subsidies and other funding for household residential energy costs by ethnicity or race from 2022 to 2045.

4.3.4. All writings used to calculate household residential housing costs by ethnicity or race from 2022 to 2045.

4.3.4.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household residential housing costs by ethnicity or race from 2022 to 2045.

4.3.5. All writings used to calculate household electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicle acquisition and maintenance costs by ethnicity or race from 2022 to 2045.

4.3.5.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicle acquisition and maintenance costs by ethnicity or race from 2022 to 2045.

4.3.6. All writings used to calculate household transportation energy costs by energy type for electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles by ethnicity or race from 2022 to 2045.

4.3.6.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household transportation energy costs by energy type for electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles by ethnicity or race from 2022 to 2045

4.3.7. All writings used to calculate household transportation costs using means other than electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles, including public transportation and electric bicycles, scooters, skateboards and other unenclosed powered devices, by ethnicity or race from 2022 to 2045.

4.3.7.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household transportation costs using means other than electric, ICE, PHEV, hybrid, hydrogen and other powered, enclosed and household-owned vehicles, including public transportation and electric bicycles, scooters, skateboards and other unenclosed powered devices, by ethnicity or race from 2022 to 2045.

4.3.8. All writings used to calculate household recreational travel costs by ethnicity or race from 2022 to 2045, including recreational travel by personal vehicle, commercial aviation, or other commercial means such as buses, boats, and rail by ethnicity or race from 2022 to 2045.

4.3.8.1. All writings used to calculate public, nonprofit and private assistance, subsidies and other funding for household recreational travel costs 2022 to 2045.

5. Economics and Food Security

5.1. All writings used to quantify the economic insecurity caused by energy "price spikes" from using fossil fuels referenced on Scoping Plan Appendix G, pp. 140-141.

5.1.1. All writings used to identify "price spike" economic insecurity impacts in California by type and use of fossil fuel if the state implements a "no action" GHG emission reduction scenario.

5.1.2. All writings used to quantify energy "price spike" economic insecurity impacts in California if the state implements a "no action" GHG emission reduction scenario from 2022.

5.1.3. All writings used to calculate changes in the risk of energy "price spike" economic insecurity impacts based on the historical experience of jurisdictions that implemented policies to reduce the use of fossil fuels and increase reliance on "variable renewable generation resources"[5] from 2008 to 2022.

5.2. All writings used to quantify the net incremental reduction in energy "price spike" economic insecurity impacts in California that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.2.1. All writings used to quantify the net incremental change in energy "price spike" economic insecurity experienced by fossil fuel end users from 2022-2045 that would occur by implementing the 2022 Draft Scoping Plan "reference scenario."

5.2.2. All writings used to quantify the net incremental change in energy "price spike" economic insecurity experienced by electrical power end users that would occur by implementing the 2022 Draft Scoping Plan "reference scenario."

5.2.2.1. All writings used to quantify potential "price spikes" affecting the cost of electricity from increased reliance on "variable renewable generation" that "only produces electricity when weather conditions are right" as stated in 2022 Draft Scoping Plan footnote 282 that would occur by implementing the 2022 Draft Scoping Plan "reference scenario."

[5] "Variable renewable generation resource" is defined in the 2022 Draft Scoping Plan as "a renewable source of electricity that is non-dispatchable due to its fluctuating nature and only produces electricity when weather conditions are right, such as when the sun is shining or the wind is blowing. Renewable resources that can be controlled and are dispatchable include geothermal, biomass, and dam-based hydroelectric power." 2022 Draft Scoping Plan, p. 158, n.282.

5.2.2.2. All writings used to quantify potential "price spikes" affecting the availability and cost of imported electric power required to meet demand with increasing reliance on "variable renewable generation" that would occur by implementing the 2022 Draft Scoping Plan "reference scenario."

5.2.2.3. All writings used to quantify potential "price spikes" affecting the availability and cost of using "dispatchable" electrical power to meet demand with increasing reliance on "variable renewable generation" that would occur by implementing the 2022 Draft Scoping Plan "reference scenario."

5.2.2.4. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of raw and processed materials required to manufacture electrical generation capacity in the 2022 Draft Scoping Plan "reference scenario."

5.2.2.5. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning electric powered vehicles in the 2022 Draft Scoping Plan "reference scenario."

5.2.2.6. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning electric powered building equipment in the 2022 Draft Scoping Plan "reference scenario."

5.2.3. All writings used to quantify the net incremental change in energy "price spike" economic insecurity experienced by hydrogen end users that would occur by implementing the 2022 Draft Scoping Plan "reference scenario."

5.2.3.1. All writings used to quantify potential hydrogen energy "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen production capacity in the 2022 Draft Scoping Plan "reference scenario."

5.2.3.2. All writings used to quantify potential hydrogen energy "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen storage and distribution capacity in the 2022 Draft Scoping Plan "reference scenario."

5.2.3.3. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen powered building equipment in the 2022 Draft Scoping Plan "reference scenario."

5.2.3.4. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning

hydrogen powered industrial equipment in the 2022 Draft Scoping Plan "proposed scenario."

5.2.3.5. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen powered vehicles in the 2022 Draft Scoping Plan "reference scenario."

5.3. All writings used to quantify the net incremental reduction in energy "price spike" economic insecurity impacts in California that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.3.1. All writings used to quantify the net incremental change in energy "price spike" economic insecurity experienced by fossil fuel end users from 2022-2045 that would occur by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.3.2. All writings used to quantify the net incremental change in energy "price spike" economic insecurity experienced by electrical power end users that would occur by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.3.2.1. All writings used to quantify potential "price spikes" affecting the cost of electricity from increased reliance on "variable renewable generation" that "only produces electricity when weather conditions are right" as stated in 2022 Draft Scoping Plan footnote 282 that would occur by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.3.2.2. All writings used to quantify potential "price spikes" affecting the availability and cost of imported electric power required to meet demand with increasing reliance on "variable renewable generation" that would occur by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.3.2.3. All writings used to quantify potential "price spikes" affecting the availability and cost of using "dispatchable" electrical power to meet demand with increasing reliance on "variable renewable generation" that would occur by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.3.2.4. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of raw and processed materials required to manufacture electrical generation capacity in the 2022 Draft Scoping Plan "proposed scenario."

5.3.2.5. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning electrical generation capacity in the 2022 Draft Scoping Plan "proposed scenario."

5.3.2.6. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning electric powered vehicles in the 2022 Draft Scoping Plan "proposed scenario."

5.3.2.7. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning electric powered building equipment in the 2022 Draft Scoping Plan "proposed scenario."

5.3.3. All writings used to quantify the net incremental change in energy "price spike" economic insecurity experienced by hydrogen end users that would occur by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.3.3.1. All writings used to quantify potential hydrogen energy "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen production capacity in the 2022 Draft Scoping Plan "proposed scenario."

5.3.3.2. All writings used to quantify potential hydrogen energy "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen storage and distribution capacity in the 2022 Draft Scoping Plan "proposed scenario."

5.3.3.3. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen powered building equipment in the 2022 Draft Scoping Plan "proposed scenario."

5.3.3.4. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen powered industrial equipment in the 2022 Draft Scoping Plan "proposed scenario."

5.3.3.5. All writings used to quantify potential electricity "price spikes" caused by changes in the cost of purchasing, installing, maintaining and decommissioning hydrogen powered vehicles in the 2022 Draft Scoping Plan "proposed scenario."

5.4. All writings used to quantify the net incremental reduction in each of the "serious adverse socioeconomic effects" that that are expected to result from climate change in California that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.4.1. All writings used to quantify the net incremental change in the "$7.3 billion (low warming scenario) and $46.6 billion (high warming scenario)" range of "economic

damage in California" referenced on Scoping Plan Appendix G, p. 56 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.4.2. All writings used to quantify the net incremental change in water shortages compared with the statement that "Certain areas in the State could face water shortages of up to 16 percent by 2050" referenced on Scoping Plan Appendix G, p. 56 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.4.3. All writings used to quantify the net incremental change in the incidence, intensity and economic impacts of drought conditions in California as referenced on Scoping Plan Appendix G, p. 57 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.4.4. All writings used to quantify the net incremental change in the incidence, intensity and economic impacts of wildfires in California as referenced on Scoping Plan Appendix G, pp. 57-58 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.4.5. All writings used to quantify the net change in the "climate change impacts" to "important sectors of the California economy such as agriculture and other natural and working lands, energy, industrial, transportation and other sectors" that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.5. All writings used to quantify the net incremental reduction in each of the serious adverse socioeconomic effects that that are expected to result from climate change in California that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.5.1. All writings used to quantify the net incremental change in the "$7.3 billion (low warming scenario) and $46.6 billion (high warming scenario)" range of "economic damage in California" referenced on Scoping Plan Appendix G, p. 56 that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.5.2. All writings used to quantify the net incremental change in water shortages compared with the statement that "Certain areas in the State could face water shortages of up to 16 percent by 2050" referenced on Scoping Plan Appendix G, p. 56 that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.5.3. All writings used to quantify the net incremental change in the incidence, intensity and economic impacts of drought conditions in California as referenced on Scoping Plan Appendix G, p. 57 that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.5.4. All writings used to quantify the net incremental change in the incidence, intensity and economic impacts of wildfires in California as referenced on Scoping Plan Appendix G, pp. 57-58 that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.5.5. All writings used to quantify the net change in the "climate change impacts" to "important sectors of the California economy such as agriculture and other natural and working lands, energy, industrial, transportation and other sectors" that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.6. All writings used to quantify climate change impacts to "food security" in California as referenced on 2022 Draft Scoping Plan, pp. 138-139 and in 2022 Draft Scoping Plan Appendix G, pp. 65-71.

5.6.1. All writings used to identify each of the food security effects that are expected result from climate change in California if the state implements a "no action" GHG emission reduction scenario.

5.6.2. All writings used to quantify each of the food security effects that are expected to result from climate change in California under the implementation if the state implements a "no action" GHG emission reduction scenario.

5.7. All writings used to quantify the net incremental reduction in each of the food security effects that are expected result from climate change in California that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.7.1. All writings used to quantify the net incremental change in the incidence of "food deserts" in California referenced on 2022 Draft Scoping Plan Appendix G, pp. 65-66 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.7.2. All writings used to quantify the net incremental change in the number of households experiencing food insecurity referenced on 2022 Draft Scoping Plan Appendix G, p. 65 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.7.3. All writings used to quantify the net incremental change in "food production" in California referenced on 2022 Draft Scoping Plan Appendix G, p. 65 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.7.4. All writings used to quantify the net incremental change in food "availability" in California referenced on 2022 Draft Scoping Plan Appendix G, p. 65 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.7.5. All writings used to quantify the net incremental change in "affordable" food in California referenced on 2022 Draft Scoping Plan Appendix G p. 65 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.8. All writings used to quantify the net incremental reduction in each of the food security effects that are expected result from climate change in California that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.8.1. All writings used to quantify the net incremental change in the incidence of "food deserts" in California referenced on 2022 Draft Scoping Plan Appendix G pp. 65-66 that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.8.2. All writings used to quantify the net incremental change in the number of households experiencing food insecurity referenced on 2022 Draft Scoping Plan Appendix G, p. 65 that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.8.3. All writings used to quantify the net incremental change in "food production" in California referenced on 2022 Draft Scoping Plan Appendix G, p. 65 that would be achieved by implementing the 2022 Draft Scoping Plan "reference scenario."

5.8.3.1. All writings used to quantify the net incremental change in "food production" in California that would be achieved by implementing "climate smart practices for annual and perennial crops" on 50,000 acres of California croplands per year referenced in in 2022 Draft Scoping Plan, Table 2-3.

5.8.3.2. All writings used to quantify the net incremental change in "food production" in California that would be achieved by implementing organic farming on 65,000 acres per year of state croplands and 20 percent of all croplands by 2045 referenced in in 2022 Draft Scoping Plan, Table 2-3.

5.8.4. All writings used to quantify the net incremental change in food "availability" in California referenced on 2022 Draft Scoping Plan Appendix G, p. 65 that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.8.5. All writings used to quantify the net incremental change in food affordability in California referenced on 2022 Draft Scoping Plan Appendix G, p. 65 that would be achieved by implementing the 2022 Draft Scoping Plan "proposed scenario."

5.8.5.1. All writings used to quantify the net incremental change in food affordability in California that would be achieved by implementing "climate smart practices for annual and perennial crops" on 50,000 acres of California croplands per year referenced in in 2022 Draft Scoping Plan, Table 2-3.

5.8.5.2. All writings used to quantify the net incremental change in food affordability in California that would be achieved by implementing organic farming on 65,000 acres per year of state croplands and 20 percent of all croplands by 2045 referenced in in 2022 Draft Scoping Plan, Table 2-3.

We note that this request reasonably describes the writings sought through their content contained therein and therefore, reasonably describes identifiable writings and information related figures and tables presented in the foregoing documents.[6] We request that such responsive records be made promptly available in an electronic format (CD, USB Drive, or Shared File Site, such as DropBox).[7] If there are hard copies that are not currently stored in an electronic format, we will arrange to inspect these documents in your office and arrange for copies to be made.

We note that the attorney-client privilege does not apply to management decisions made by lawyers serving in management roles. If you elect to assert either the attorney-client or deliberative process privilege for any documentation that is otherwise responsive to this request, we ask that you expressly disclose reliance on such a privilege claim that we can seek timely judicial review of your failure to disclose all responsive documents.

Please do not hesitate to contact Paloma Perez-McEvoy (*paloma.perez-mcevoy@hklaw.com*) if you have any initial questions about the foregoing request. We look forward to your timely transmittal of all responsive documentation. Thank you.

Sincerely yours,

HOLLAND & KNIGHT LLP

Jennifer L. Hernandez

cc: Richard Corey, CARB Executive Officer (rcorey@arb.ca.gov)

[6] Gov. Code § 6257; *Cal. First Amendment Coalition v. Superior Court* (1998) 67 Cal.App.4th 159.
[7] *See e.g.,* 88 Ops.Cal.Atty.Gen. 153, pp. 12-13 (2005) (reinforcing the requirement that government agencies make identifiable public records promptly available); 89 Ops.Cal.Atty.Gen. 39, p. 3 (2006) (same).

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June 15, 2022

Via Email

California Air Resources Board Public Records Coordinator
Office of Legal Affairs
1001 I Street
Sacramento, CA 95814
prareqst@arb.ca.gov

Re: California Public Records Act Request for Information and Data Related to the 2022 Scoping Plan Update

Dear California Air Resources Board Public Records Coordinator:

Pursuant to the California Public Records Act ("CPRA") (Gov. Code § 6250 *et seq.*), this request seeks public records[1] related to the California Air Resources Board's ("CARB") 2022 Draft Scoping Plan Update and its supporting documentation. Specifically, this request seeks public records that support the findings and conclusions presented in (1) the 2022 Draft Scoping Plan document; (2) its appendices; and (3) in the PATHWAYS models as described in a CARB public workshop on March 15, 2022 in a PowerPoint Presentation entitled "CARB 2022 Draft Scoping Plan: AB 32 Source Emissions Initial Modeling Results," ("MRPPT")[2] and referenced in 2022 Draft Scoping Plan footnotes 296 and 498.

[1] A "public record" encompasses any information relating to the discharge of an official duty. *See e.g, Braun v. Taft* (1984) 154 Cal.App.3d 332, 340; *San Gabriel Tribune v. Superior Court* (1983) 143 Cal.App.3d 762, 774. The CPRA broadly defines "public records" as any **writing** containing information relating to the conduct of the public's business prepared, owned, used, or retained by any state or local agency regardless of physical form or characteristics. Gov. Code § 6252(e). The term "writing" has also been broadly defined in a manner that does not pay regard to the writing's physical form or characteristics (handwritten, typed, electronic, or otherwise reproduced, or stored), and includes but is not limited to: written documents, photographs, photocopies, facsimiles, text messages, emails, and writings that are within a public agency's constructive possession. Gov. Code § 6252(e) & (g); *City of San Jose v. Superior Court* (2017) 2 Cal.5th 608, 623.

[2] Available at: https://ww2.arb.ca.gov/sites/default/files/2022-03/SP22-Model-Results-E3-ppt.pdf.

The public records sought have been grouped into 14 major topic areas that describe certain writings sought to support the findings in the foregoing materials. Below each heading is a description of the writings and information sought pursuant to this CPRA request.

1. Nuclear and Hydroelectrical Resources

1.1. All writings used to evaluate the use of nuclear power to reduce California GHG emissions from 2022 to 2045.

1.1.1. All writings used to calculate the amount of nuclear power generation capacity in California from 2022 to 2045 in the 2022 Draft Scoping Plan "reference scenario."

1.1.2. All writings used to calculate the amount of nuclear power generation capacity in California.

1.1.3. All writings used to evaluate the reliability of nuclear power generation capacity in California.

1.1.4. All writings used to evaluate the cost of nuclear power nuclear power generation capacity in California.

1.1.5. All writings used to evaluate the potential "co-benefits" of nuclear power in California, including the provision of energy for hydrogen production, carbon capture sequestration ("CCS"), carbon dioxide removal ("CDR"), reserve power for variable renewable energy generation[3] and desalination.

1.2. All writings used to evaluate the use of hydroelectrical power to reduce California GHG emissions from 2022 to 2045.

1.2.1. All writings used to calculate the amount of hydroelectrical power generation capacity in California from 2022 to 2045 in the 2022 Draft Scoping Plan "reference scenario."

1.2.2. All writings used to calculate the amount of hydroelectrical power generation capacity in California.

1.2.3. All writings used to evaluate the reliability of hydroelectrical power generation capacity in California.

1.2.4. All writings used to evaluate the cost of hydroelectrical power nuclear power generation capacity in California.

[3] As defined in the 2022 Draft Scoping Plan, p. 158, n.282.

1.2.5. All writings used to evaluate the potential "co-benefits" of expanded hydroelectrical power capacity in California, energy storage to provide a reserve supply for variable renewable energy generation,[4] energy storage for hydrogen production, CCS, and CDR, and increased drinking and irrigation water storage.

2. Electrical Generation Capacity

2.1. All writings used to calculate the annual installed capacity of instate electrical generation by generation source from 2022 to 2045.

2.2. All writings used to calculate the net change in the installed capacity of instate electrical generation by generation source from 2022 to 2045.

2.3. All writings used to calculate the installed capacity of out of state electrical generation supplying imported electrical power to California from 2022 to 2045.

2.4. All writings used to calculate the net change in the installed capacity of out of state electrical generation supplying imported electrical power to California from 2022 to 2045.

2.5. All writings used to calculate the cost of decommissioning (reducing) instate electrical generation capacity by generation source from 2022 to 2045.

2.6. All writings used to calculate the cost of decommissioning (reducing) out of state electrical generation capacity by generation source from 2022 to 2045.

2.7. All writings used to calculate the cost of commissioning (increasing) instate electrical generation capacity by generation source from 2022 to 2045.

2.8. All writings used to calculate the cost of commissioning (increasing) out of state electrical generation capacity by generation source from 2022-2045.

2.9. All writings used to calculate the annual revenue required to fund the commissioning and decommissioning of instate and out of state electrical generation capacity from 2022-2045.

2.10. All writings used to calculate the amount of the annual revenue in this PRA Request No. 2.9 paid by retail electrical power end users from 2022-2045.

2.11. All writings used to calculate the amount of the annual revenue in this PRA Request No. 2.9 paid by commercial electrical power end users from 2022-2045.

2.12. All writings used to calculate the amount of the annual revenue in this PRA Request No. 2.9 paid by industrial electrical power end users from 2022-2045.

[4] As defined in the 2022 Draft Scoping Plan, p. 158, n.282.

2.13. All writings used to calculate the amount of the annual revenue in this PRA Request No. 2.9 paid by wholesale electrical power end users from 2022-2045.

2.14. All writings used to calculate the locations and quantities of raw material resources (e.g., raw materials used to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) required to produce the amount of electrical generation capacity from 2022 to 2045.

2.15. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the amount of electrical generation capacity from 2022 to 2045.

2.16. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the amount of electrical generation capacity from 2022 to 2045.

2.17. All writings used to calculate the locations, capacity and size of the material processing facilities (e.g., processing required to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) to produce the amount of electrical generation capacity from 2022 to 2045.

2.18. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce the amount of electrical generation capacity from 2022 to 2045.

2.19. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce the amount of electrical generation capacity from 2022 to 2045.

2.20. All writings used to calculate the locations, capacity and size of component manufacturing facilities required to manufacture all physical components in the amount of electrical generation capacity from 2022 to 2045.

2.21. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the amount of electrical generation capacity from 2022 to 2045.

2.22. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the amount of electrical generation capacity from 2022 to 2045.

2.23. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the amount of electrical generation capacity from 2022 to 2045.

2.24. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the amount of electrical generation capacity from 2022 to 2045.

2.25. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final manufacturing and assembly facilities to California to supply the amount of electrical generation capacity from 2022 to 2045.

2.26. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of electrical generation capacity from 2022 to 2045.

2.27. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of electrical generation capacity from 2022 to 2045.

2.28. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of electrical generation capacity from 2022 to 2045.

2.29. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of electrical generation capacity from 2022 to 2045.

3. Electrical Generation Load

3.1. All writings used to calculate the electrical power demand supplied from instate generation by generation source in 2022.

3.2. All writings used to calculate electrical power demand supplied from out of state electrical generation imports to California by generation source in 2022.

3.3. All writings used to calculate the electrical power demand supplied from instate electrical power sources by source from 2022 to 2045.

3.4. All writings used to calculate the electrical power demand supplied from out of state electrical power sources by source from 2022 to 2045.

3.5. All writings used to calculate the demand for electrical power in California in 2022 to 2045.

3.5.1. All writings used to calculate the number and electrical power demand of light duty vehicles using electricity in California from 2022 to 2045.

3.5.2. All writings used to calculate the number and electrical power demand of medium duty vehicles using electricity in California from 2022 to 2045.

3.5.3. All writings used to calculate the number and electrical power demand of heavy duty vehicles using electricity in California from 2022 to 2045.

3.5.4. All writings used to calculate by type the electrical power demand of other ground and ocean going transportation vehicles and related equipment using electricity in California from 2022 to 2045.

3.5.5. All writings used to calculate by type the electrical power demand of other aviation transportation aircraft and related equipment using electricity in California from 2022 to 2045.

3.5.6. All writings used to calculate the number by type and demand of residential building equipment using electricity in California from 2022 to 2045.

3.5.7. All writings used to calculate the number by type and demand of residential commercial building equipment using electricity in California from 2022 to 2045.

3.5.8. All writings used to calculate the number by type and demand of industrial operations and building equipment using electricity in California from 2022 to 2045.

3.5.9. All writings used to calculate the number by type and demand of construction equipment using electricity in California from 2022 to 2045.

3.5.10. All writings used to calculate all other electrical power demands in California from 2022 to 2045.

3.6. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power demand in California from 2022 to 2045.

3.6.1. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for light duty vehicles using electricity in California from 2022 to 2045.

3.6.2. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for medium duty vehicles using electricity in California from 2022 to 2045.

3.6.3. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for heavy duty vehicles using electricity in California from 2022 to 2045.

3.6.4. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for other ground and ocean going transportation vehicles and related equipment using electricity in California from 2022 to 2045.

3.6.5. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for other aviation transportation aircraft and related equipment using electricity in California from 2022 to 2045.

3.6.6. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for residential building equipment using electricity in California from 2022 to 2045.

3.6.7. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for commercial building equipment using electricity in California from 2022 to 2045.

3.6.8. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for industrial operations and building equipment using electricity in California from 2022 to 2045.

3.6.9. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for construction equipment using electricity in California from 2022 to 2045.

3.6.10. All writings used to calculate the amount and cost of electrical power bulk transmission, regional distribution, local distribution, and end user charging stations and facilities to supply electrical power for all other electrical power demands in California from 2022 to 2045.

3.7. All writings used to identify the electrical power system criteria used to evaluate the reliability of California electrical power supplies from 2022 to 2045.

3.8. All writings used to calculate the reliability of California electrical power supplies using the criteria in this PRA Request Number 3.7 from 2022 to 2045.

3.9. All writings used to calculate the hourly electrical power demand and supply in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

3.10. All writings used to calculate the hourly electrical power demand and supply in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in MRPPT,referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

3.11. All writings used to calculate the amount of dispatchable electrical power reserves by source required to meet demand in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

3.12. All writings used to calculate the amount of electrical power end user demand response and management by response management measure required to meet demand in the 2022 Draft Scoping Plan "reference scenario" California from 2022 to 2045.

3.13. All writings used to calculate the amount of dispatchable electrical power reserves by source required to meet demand in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

3.14. All writings used to calculate the amount of electrical power end user demand management by management measure required to meet demand in the 2022 Draft Scoping Plan "proposed scenario" California from 2022 to 2045.

3.15. All writings used to calculate the retail cost of electricity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

3.16. All writings used to calculate the commercial cost of electricity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

3.17. All writings used to calculate the industrial cost of electricity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

3.18. All writings used to calculate the wholesale cost of electricity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

3.19. All writings used to calculate the retail cost of in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

3.20. All writings used to calculate the commercial cost of electricity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

3.21. All writings used to calculate the industrial cost of electricity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

3.22. All writings used to calculate the wholesale cost of electricity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

4. Customer Solar

4.1. All writings used to calculate the installed capacity of "customer solar" electrical generation identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

4.2. All writings used to calculate the net change in the installed capacity of "customer solar" electrical generation from 2022 to 2045.

4.3. All writings used to calculate the locations of "customer solar" capacity installed from 2022 to 2045.

4.4. All writings used to calculate the residential "customer solar" capacity installed from 2022 to 2045.

4.5. All writings used to calculate the number of households by income that will have "customer solar" capacity installed from 2022 to 2045.

4.6. All writings used to calculate the number of households by race that will have "customer solar" capacity installed from 2022 to 2045.

4.7. All writings used to calculate the commercial "customer solar" capacity from 2022 to 2045.

4.8. All writings used to calculate the industrial "customer solar" capacity from 2022 to 2045.

4.9. All writings used to calculate the amount of electrical power supplied by "customer solar" electrical generation from 2022 to 2045.

4.10. All writings used to calculate the cost of new "customer solar" electrical generation capacity from 2022 to 2045.

4.11. All writings used to calculate the cost of public subsidies for "customer solar" electrical generation capacity from 2022 to 2045.

4.12. All writings used to calculate the amount of "customer solar" electrical generation curtailed (exceed demand) from 2022 to 2045.

4.13. All writings used to calculate the hourly electrical power demand and electrical power supplied by "customer solar" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

4.14. All writings used to calculate the hourly electrical power demand and electrical power supplied by "customer solar" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

4.15. All writings used to calculate the retail cost of electricity supplied by "customer solar" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

4.16. All writings used to calculate the commercial cost of electricity supplied by "customer solar" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

4.17. All writings used to calculate the industrial cost of electricity supplied by "customer solar" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

4.18. All writings used to calculate the wholesale cost of electricity supplied by "customer solar" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

4.19. All writings used to calculate the retail cost of electricity supplied by "customer solar" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

4.20. All writings used to calculate the commercial cost of electricity supplied by "customer solar" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

4.21. All writings used to calculate the industrial cost of electricity supplied by "customer solar" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

4.22. All writings used to calculate the wholesale cost of electricity supplied by "customer solar" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

4.23. All writings used to calculate the cost of public subsidies for "customer solar" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

4.24. All writings used to calculate the cost of public subsidies for "customer solar" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

4.25. All writings used to calculate the amount of "customer solar" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

4.26. All writings used to calculate the amount of "customer solar" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

4.27. All writings used to calculate the locations and quantities of raw material resources (e.g., raw materials used to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) required to produce the amount of "customer solar" from 2022 to 2045.

4.28. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the amount of "customer solar" from 2022 to 2045.

4.29. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the amount of "customer solar" from 2022 to 2045.

4.30. All writings used to calculate the locations, capacity and size of the material processing facilities (e.g., processing required to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) to produce the amount of "customer solar" from 2022 to 204..

4.31. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce the amount of "customer solar" from 2022 to 2045.

4.32. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce the amount of "customer solar" from 2022 to 2045.

4.33. All writings used to calculate the locations, capacity and size of component manufacturing facilities (e.g., silica, glass, semiconductor assemblies, housing, mounts, wiring, monitoring, load regulation and safety equipment) required to manufacture all physical components in the amount of "customer solar" from 2022 to 2045.

4.34. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the amount of "customer solar" from 2022 to 2045.

4.35. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the amount of "customer solar" from 2022 to 2045.

4.36. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the amount of "customer solar" from 2022 to 2045 from 2022 to 2045.

4.37. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the amount of "customer solar" from 2022 to 2045.

4.38. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final manufacturing and assembly facilities to California to supply the amount of "customer solar" from 2022 to 2045.

4.39. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "customer solar" from 2022 to 2045.

4.40. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "customer solar" from 2022 to 2045.

4.41. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "customer solar" from 2022 to 2045.

4.42. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "customer solar" from 2022 to 2045.

5. Solar

5.1. All writings used to calculate the installed capacity of "solar" electrical generation identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

5.2. All writings used to calculate the net change in the installed capacity of "solar" electrical generation from 2022 to 2045.

5.3. All writings used to calculate the acreage of instate "solar" electrical generation capacity installed from 2022 to 2045.

5.4. All writings used to calculate the locations of instate "solar" electrical generation capacity installed from 2022 to 2045.

5.5. All writings used to calculate the acreage of out of state "solar" electrical generation capacity installed from 2022 to 2045.

5.6. All writings used to calculate the locations of out of state "solar" electrical generation capacity installed from 2022 to 2045.

5.7. All writings used to calculate the amount of electrical power supplied by "solar" electrical generation from 2022 to 2045.

5.8. All writings used to calculate the cost of new "solar" electrical generation capacity from 2022 to 2045.

5.9. All writings used to calculate the cost of public subsidies for "solar" electrical generation capacity from 2022 to 2045.

5.10. All writings used to calculate the amount of " solar" electrical generation curtailed (exceed demand) from 2022 to 2045.

5.11. All writings used to calculate the hourly electrical power demand and electrical power supplied by "solar" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

5.12. All writings used to calculate the hourly electrical power demand and electrical power supplied by "solar" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

5.13. All writings used to calculate the retail cost of electricity supplied by "solar" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

5.14. All writings used to calculate the commercial cost of electricity supplied by "solar" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

5.15. All writings used to calculate the industrial cost of electricity supplied by "solar" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

5.16. All writings used to calculate the wholesale cost of electricity supplied by "solar" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

5.17. All writings used to calculate the retail cost of electricity supplied by "solar" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

5.18. All writings used to calculate the commercial cost of electricity supplied by "solar" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

5.19. All writings used to calculate the industrial cost of electricity supplied by "solar" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

5.20. All writings used to calculate the wholesale cost of electricity supplied by "solar" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

5.21. All writings used to calculate the cost of public subsidies for "solar" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

5.22. All writings used to calculate the cost of public subsidies for "solar" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

5.23. All writings used to calculate the amount of "solar" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

5.24. All writings used to calculate the amount of "solar" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

5.25. All writings used to calculate the locations and quantities of raw material resources (e.g., raw materials used to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) required to produce the amount of "solar" from 2022 to 2045.

5.26. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the amount of "solar" from 2022 to 2045.

5.27. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the amount of "solar" from 2022 to 2045.

5.28. All writings used to calculate the locations, capacity and size of the material processing facilities (e.g., processing required to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) to produce the amount of "solar" from 2022 to 2045.

5.29. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce the amount of "solar" from 2022 to 2045.

5.30. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce the amount of "solar" from 2022 to 2045.

5.31. All writings used to calculate the locations, capacity and size of component manufacturing facilities (e.g., silica, glass, semiconductor assemblies, housing, mounts, wiring, monitoring, load regulation and safety equipment) required to manufacture all physical components in the amount of "solar" from 2022 to 2045.

5.32. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the amount of "solar" from 2022 to 2045.

5.33. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the amount of "solar" from 2022 to 2045.

5.34. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the amount of "solar" from 2022 to 2045 from 2022 to 2045.

5.35. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the amount of "solar" from 2022 to 2045.

5.36. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final

manufacturing and assembly facilities to California to supply the amount of "solar" from 2022 to 2045.

5.37. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "solar" from 2022 to 2045.

5.38. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "solar" from 2022 to 2045.

5.39. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "solar" from 2022 to 2045.

5.40. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "solar" from 2022 to 2045.

6. Battery Storage

6.1. All writings used to calculate the installed capacity of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

6.2. All writings used to calculate the installed capacity of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045 by duration of storage.

6.3. All writings used to calculate the net change in the installed capacity of "battery storage" from 2022 to 2045.

6.4. All writings used to calculate the acreage of "battery storage" installed from 2022 to 2045.

6.5. All writings used to calculate the locations of instate "battery storage" installed from 2022 to 2045.

6.6. All writings used to calculate the amount of electrical power supplied by "battery storage" from 2022 to 2045.

6.7. All writings used to calculate the amount of electrical power required to charge "battery storage" from 2022 to 2045.

6.8. All writings used to calculate the sources of electrical power required to charge "battery storage" from 2022 to 2045.

6.9. All writings used to calculate the cost of new "battery storage" from 2022 to 2045.

6.10. All writings used to calculate the cost of public subsidies for "battery storage" from 2022 to 2045.

6.11. All writings used to calculate the hourly electrical power demand and electrical power supplied by "battery storage" in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

6.12. All writings used to calculate the hourly electrical power demand and electrical power supplied by "battery storage" in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

6.13. All writings used to calculate the retail cost of electricity supplied by "battery storage" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.14. All writings used to calculate the commercial cost of electricity supplied by "battery storage" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.15. All writings used to calculate the industrial cost of electricity supplied by "battery storage" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.16. All writings used to calculate the wholesale cost of electricity supplied by "battery storage" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.17. All writings used to calculate the retail cost of electricity supplied by "battery storage" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.18. All writings used to calculate the commercial cost of electricity supplied by "battery storage" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.19. All writings used to calculate the industrial cost of electricity supplied by "battery storage" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

6.20. All writings used to calculate the wholesale cost of electricity supplied by "battery storage" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.21. All writings used to calculate the cost of public subsidies for "battery storage" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

6.22. All writings used to calculate the cost of public subsidies for "battery storage" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

6.23. All writings used to calculate the capacity of battery storage installed in light, medium, heavy-duty, rail, ocean going and all other vehicles in California from 2022 to 2045.

6.24. All writings used to calculate the capacity of "behind the meter" or "customer" battery storage installed in California residential buildings from 2022 to 2045.

6.25. All writings used to calculate the capacity of "behind the meter" or "customer" battery storage installed in California commercial buildings from 2022 to 2045.

6.26. All writings used to calculate the capacity of "behind the meter" or "customer" battery storage installed in California industrial buildings from 2022 to 2045.

6.27. All writings used to calculate the locations and quantities of raw material resources (e.g., raw materials used to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) required to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.28. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.29. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.30. All writings used to calculate the locations, capacity and size of the material processing facilities (e.g., processing required to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) used to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.31. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.32. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.33. All writings used to calculate the locations, capacity and size of component manufacturing facilities (e.g., battery cores, silicon and semiconductor assemblies, housing, wiring, monitoring, load regulation and safety equipment) required to manufacture all physical components used in the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.34. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045

6.35. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.36. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.37. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.38. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final

manufacturing and assembly facilities to California to supply the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.39. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.40. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.41. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

6.42. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "battery storage" identified in 2022 Draft Scoping Plan Figure 4-5, and the amount of battery storage used in California vehicles and buildings, from 2022 to 2045.

7. Wind

7.1. All writings used to calculate the installed capacity of "wind" electrical generation identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

7.2. All writings used to calculate the net change in the installed capacity of "wind" electrical generation from 2022 to 2045.

7.3. All writings used to calculate the acreage of instate "wind" electrical generation capacity installed from 2022 to 2045.

7.4. All writings used to calculate the locations of instate "wind" electrical generation capacity installed from 2022 to 2045.

7.5. All writings used to calculate the acreage of out of state "wind" electrical generation capacity installed from 2022 to 2045.

7.6. All writings used to calculate the locations of out of state "wind" electrical generation capacity installed from 2022 to 2045.

7.7. All writings used to calculate the amount of electrical power supplied by "wind" electrical generation from 2022 to 2045.

7.8. All writings used to calculate the cost of new "wind" electrical generation capacity from 2022 to 2045.

7.9. All writings used to calculate the cost of public subsidies for "wind" electrical generation capacity from 2022 to 2045.

7.10. All writings used to calculate the amount of " wind" electrical generation curtailed (exceed demand) from 2022 to 2045.

7.11. All writings used to calculate the hourly electrical power demand and electrical power supplied by "wind" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

7.12. All writings used to calculate the hourly electrical power demand and electrical power supplied by "wind" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

7.13. All writings used to calculate the retail cost of electricity supplied by "wind" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

7.14. All writings used to calculate the commercial cost of electricity supplied by "wind" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

7.15. All writings used to calculate the industrial cost of electricity supplied by "wind" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

7.16. All writings used to calculate the wholesale cost of electricity supplied by "wind" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

7.17. All writings used to calculate the retail cost of electricity supplied by "wind" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

7.18. All writings used to calculate the commercial cost of electricity supplied by "wind" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

7.19. All writings used to calculate the industrial cost of electricity supplied by "wind" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

7.20. All writings used to calculate the wholesale cost of electricity supplied by "wind" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

7.21. All writings used to calculate the cost of public subsidies for "wind" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

7.22. All writings used to calculate the cost of public subsidies for "wind" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

7.23. All writings used to calculate the amount of "wind" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

7.24. All writings used to calculate the amount of "wind" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

7.25. All writings used to calculate the locations and quantities of raw material resources (e.g., raw materials used to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) required to produce the amount of "wind" from 2022 to 2045.

7.26. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the amount of "wind" from 2022 to 2045.

7.27. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the amount of "wind" from 2022 to 2045.

7.28. All writings used to calculate the locations, capacity and size of the material processing facilities (e.g., processing required to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) to produce the amount of "wind" from 2022 to 2045.

7.29. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce the amount of "wind" from 2022 to 2045.

7.30. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce the amount of "wind" from 2022 to 2045.

7.31. All writings used to calculate the locations, capacity and size of component manufacturing facilities (e.g., silica, glass, semiconductor assemblies, housing, mounts, wiring, monitoring, load regulation and safety equipment) required to manufacture all physical components in the amount of "wind" from 2022 to 2045.

7.32. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the amount of "wind" from 2022 to 2045.

7.33. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the amount of "wind" from 2022 to 2045.

7.34. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the amount of "wind" from 2022 to 2045 from 2022 to 2045.

7.35. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the amount of "wind" from 2022 to 2045.

7.36. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final manufacturing and assembly facilities to California to supply the amount of "wind" from 2022 to 2045.

7.37. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "wind" from 2022 to 2045.

7.38. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "wind" from 2022 to 2045.

7.39. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "wind" from 2022 to 2045.

7.40. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "wind" from 2022 to 2045.

8. Offshore Wind

8.1. All writings used to calculate the installed capacity of "offshore wind" electrical generation identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

8.2. All writings used to calculate the net change in the installed capacity of "offshore wind" electrical generation from 2022 to 2045.

8.3. All writings used to calculate the acreage of "offshore wind" electrical generation capacity installed in California territorial waters from 2022 to 2045.

8.4. All writings used to calculate the locations of "offshore wind" electrical generation capacity installed in California territorial waters from 2022 to 2045.

8.5. All writings used to calculate the acreage of "offshore wind" electrical generation capacity installed outside of California territorial waters from 2022 to 2045.

8.6. All writings used to calculate the locations "offshore wind" electrical generation capacity installed outside of California territorial waters from 2022 to 2045.

8.7. All writings used to calculate the amount of electrical power supplied by "offshore wind" electrical generation from 2022 to 2045.

8.8. All writings used to calculate the cost of new "offshore wind" electrical generation capacity from 2022 to 2045.

8.9. All writings used to calculate the cost of public subsidies for "offshore wind" electrical generation capacity from 2022 to 2045.

8.10. All writings used to calculate the amount of " offshore wind" electrical generation curtailed (exceed demand) from 2022 to 2045.

8.11. All writings used to calculate the hourly electrical power demand and electrical power supplied by "offshore wind" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

8.12. All writings used to calculate the hourly electrical power demand and electrical power supplied by "offshore wind" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

8.13. All writings used to calculate the retail cost of electricity supplied by "offshore wind" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

8.14. All writings used to calculate the commercial cost of electricity supplied by "offshore wind" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

8.15. All writings used to calculate the industrial cost of electricity supplied by "offshore wind" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

8.16. All writings used to calculate the wholesale cost of electricity supplied by "offshore wind" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

8.17. All writings used to calculate the retail cost of electricity supplied by "offshore wind" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

8.18. All writings used to calculate the commercial cost of electricity supplied by "offshore wind" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

8.19. All writings used to calculate the industrial cost of electricity supplied by "offshore wind" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

8.20. All writings used to calculate the wholesale cost of electricity supplied by "offshore wind" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

8.21. All writings used to calculate the cost of public subsidies for "offshore wind" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

8.22. All writings used to calculate the cost of public subsidies for "offshore wind" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

8.23. All writings used to calculate the amount of "offshore wind" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

8.24. All writings used to calculate the amount of "offshore wind" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

8.25. All writings used to calculate the locations and quantities of raw material resources (e.g., raw materials used to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) required to produce the amount of "offshore wind" from 2022 to 2045.

8.26. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the amount of "offshore wind" from 2022 to 2045.

8.27. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the amount of "offshore wind" from 2022 to 2045.

8.28. All writings used to calculate the locations, capacity and size of the material processing facilities (e.g., processing required to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) to produce the amount of "offshore wind" from 2022 to 204..

8.29. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce the amount of "offshore wind" from 2022 to 2045.

8.30. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce the amount of "offshore wind" from 2022 to 2045.

8.31. All writings used to calculate the locations, capacity and size of component manufacturing facilities (e.g., silica, glass, semiconductor assemblies, housing, mounts, wiring, monitoring, load regulation and safety equipment) required to manufacture all physical components in the amount of "offshore wind" from 2022 to 2045.

8.32. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the amount of "offshore wind" from 2022 to 2045.

8.33. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the amount of "offshore wind" from 2022 to 2045.

8.34. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the amount of "offshore wind" from 2022 to 2045 from 2022 to 2045.

8.35. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the amount of "offshore wind" from 2022 to 2045.

8.36. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final manufacturing and assembly facilities to California to supply the amount of "offshore wind" from 2022 to 2045.

8.37. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "offshore wind" from 2022 to 2045.

8.38. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "offshore wind" from 2022 to 2045.

8.39. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "offshore wind" from 2022 to 2045.

8.40. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "offshore wind" from 2022 to 2045.

9. Biomass

9.1. All writings used to calculate the installed capacity of "biomass" electrical generation identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

9.2. All writings used to calculate the net change in the installed capacity of "biomass" electrical generation from 2022 to 2045.

9.3. All writings used to calculate the acreage of instate "biomass" electrical generation capacity installed from 2022 to 2045.

9.4. All writings used to calculate the locations of instate "biomass" electrical generation capacity installed from 2022 to 2045.

9.5. All writings used to calculate the acreage of out of state "biomass" electrical generation capacity installed from 2022 to 2045.

9.6. All writings used to calculate the locations of out of state "biomass" electrical generation capacity installed from 2022 to 2045.

9.7. All writings used to calculate the amount of electrical power supplied by "biomass" electrical generation from 2022 to 2045.

9.8. All writings used to calculate the cost of new "biomass" electrical generation capacity from 2022 to 2045.

9.9. All writings used to calculate the cost of public subsidies for "biomass" electrical generation capacity from 2022 to 2045.

9.10. All writings used to calculate the amount of " biomass" electrical generation curtailed (exceed demand) from 2022 to 2045.

9.11. All writings used to calculate the hourly electrical power demand and electrical power supplied by "biomass" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

9.12. All writings used to calculate the hourly electrical power demand and electrical power supplied by "biomass" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

9.13. All writings used to calculate the retail cost of electricity supplied by "biomass" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

9.14. All writings used to calculate the commercial cost of electricity supplied by "biomass" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

9.15. All writings used to calculate the industrial cost of electricity supplied by "biomass" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

9.16. All writings used to calculate the wholesale cost of electricity supplied by "biomass" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

9.17. All writings used to calculate the retail cost of electricity supplied by "biomass" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

9.18. All writings used to calculate the commercial cost of electricity supplied by "biomass" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

9.19. All writings used to calculate the industrial cost of electricity supplied by "biomass" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

9.20. All writings used to calculate the wholesale cost of electricity supplied by "biomass" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

9.21. All writings used to calculate the cost of public subsidies for "biomass" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

9.22. All writings used to calculate the cost of public subsidies for "biomass" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

9.23. All writings used to calculate the amount of "biomass" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

9.24. All writings used to calculate the amount of "biomass" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

10. Pumped Storage

10.1. All writings used to calculate the installed capacity of "pumped storage" electrical generation identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

10.2. All writings used to calculate the net change in the installed capacity of "pumped storage" electrical generation from 2022 to 2045.

10.3. All writings used to calculate the acreage of instate "pumped storage" electrical generation capacity installed from 2022 to 2045.

10.4. All writings used to calculate the locations of instate "pumped storage" electrical generation capacity installed from 2022 to 2045.

10.5. All writings used to calculate the acreage of out of state "pumped storage" electrical generation capacity installed from 2022 to 2045.

10.6. All writings used to calculate the locations of out of state "pumped storage" electrical generation capacity installed from 2022 to 2045.

10.7. All writings used to calculate the amount of electrical power supplied by "pumped storage" electrical generation from 2022 to 2045.

10.8. All writings used to calculate the cost of new "pumped storage" electrical generation capacity from 2022 to 2045.

10.9. All writings used to calculate the cost of public subsidies for "pumped storage" electrical generation capacity from 2022 to 2045.

10.10. All writings used to calculate the amount of " pumped storage" electrical generation curtailed (exceed demand) from 2022 to 2045.

10.11. All writings used to calculate the hourly electrical power demand and electrical power supplied by "pumped storage" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

10.12. All writings used to calculate the hourly electrical power demand and electrical power supplied by "pumped storage" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

10.13. All writings used to calculate the retail cost of electricity supplied by "pumped storage" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

10.14. All writings used to calculate the commercial cost of electricity supplied by "pumped storage" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

10.15. All writings used to calculate the industrial cost of electricity supplied by "pumped storage" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

10.16. All writings used to calculate the wholesale cost of electricity supplied by "pumped storage" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

10.17. All writings used to calculate the retail cost of electricity supplied by "pumped storage" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

10.18. All writings used to calculate the commercial cost of electricity supplied by "pumped storage" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

10.19. All writings used to calculate the industrial cost of electricity supplied by "pumped storage" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

10.20. All writings used to calculate the wholesale cost of electricity supplied by "pumped storage" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

10.21. All writings used to calculate the cost of public subsidies for "pumped storage" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

10.22. All writings used to calculate the cost of public subsidies for "pumped storage" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

10.23. All writings used to calculate the amount of "pumped storage" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

10.24. All writings used to calculate the amount of "pumped storage" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

11. Wind OOS New Tx

11.1. All writings used to calculate the installed capacity of "wind OOS new tx" electrical generation identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

11.2. All writings used to calculate the net change in the installed capacity of "wind OOS new tx" electrical generation from 2022 to 2045.

11.3. All writings used to calculate the acreage of "wind OOS new tx" electrical generation capacity installed from 2022 to 2045.

11.4. All writings used to calculate the locations of instate "wind OOS new tx" electrical generation capacity installed from 2022 to 2045.

11.5. All writings used to calculate the amount of electrical power supplied by "wind OOS new tx" electrical generation from 2022 to 2045.

11.6. All writings used to calculate the cost of new "wind OOS new tx" electrical generation capacity from 2022 to 2045.

11.7. All writings used to calculate the cost of public subsidies for "wind OOS new tx" electrical generation capacity from 2022 to 2045.

11.8. All writings used to calculate the amount of " wind OOS new tx" electrical generation curtailed (exceed demand) from 2022 to 2045.

11.9. All writings used to calculate the hourly electrical power demand and electrical power supplied by "wind OOS new tx" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

11.10. All writings used to calculate the hourly electrical power demand and electrical power supplied by "wind OOS new tx" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

11.11. All writings used to calculate the retail cost of electricity supplied by "wind OOS new tx" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

11.12. All writings used to calculate the commercial cost of electricity supplied by "wind OOS new tx" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

11.13. All writings used to calculate the industrial cost of electricity supplied by "wind OOS new tx" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

11.14. All writings used to calculate the wholesale cost of electricity supplied by "wind OOS new tx" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

11.15. All writings used to calculate the retail cost of electricity supplied by "wind OOS new tx" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

11.16. All writings used to calculate the commercial cost of electricity supplied by "wind OOS new tx" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

11.17. All writings used to calculate the industrial cost of electricity supplied by "wind OOS new tx" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

11.18. All writings used to calculate the wholesale cost of electricity supplied by "wind OOS new tx" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

11.19. All writings used to calculate the cost of public subsidies for "wind OOS new tx" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

11.20. All writings used to calculate the cost of public subsidies for "wind OOS new tx" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

11.21. All writings used to calculate the amount of "wind OOS new tx" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

11.22. All writings used to calculate the amount of "wind OOS new tx" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045. All writings used to calculate the locations and quantities of raw material resources (e.g., raw materials used to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) required to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.23. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used to extract and mill raw materials by energy type at each location required to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.24. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship extracted raw materials to raw material processing facilities to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.25. All writings used to calculate the locations, capacity and size of the material processing facilities (e.g., processing required to produce aluminum, cement, concrete, copper, glass, iron, plastic, silicon, steel, lithium, cobalt, nickel, silver, and rare earth metals) to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.26. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by material processing facilities by location to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.27. All writings used to calculate the shipping destination, distance, type of vehicle, frequency, and fossil fuel consumption required to ship products from material processing facilities to component manufacturing facilities to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.28. All writings used to calculate the locations, capacity and size of component manufacturing facilities (e.g., silica, glass, semiconductor assemblies, housing, mounts, wiring, monitoring, load regulation and safety equipment) required to manufacture all physical components in the amount of "wind OOS new tx" from 2022 to 2045.

11.29. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by component manufacturing facilities by location to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.30. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from component manufacturing facilities to final manufacturing and assembly facilities to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.31. All writings used to calculate the locations, capacity and size of final manufacturing and assembly facilities for the amount of "wind OOS new tx" from 2022 to 2045 from 2022 to 2045.

11.32. All writings used to calculate the locations and quantities of coal, natural gas, diesel fuel and other fossil fuels used by final manufacturing and assembly facilities by location to produce the amount of "wind OOS new tx" from 2022 to 2045.

11.33. All writings used to calculate the shipping destination, distance, mode, type of vehicle, frequency, and fossil fuel consumption required to ship products from final manufacturing and assembly facilities to California to supply the amount of "wind OOS new tx" from 2022 to 2045.

11.34. All writings used to calculate the GHG emissions generated in California, in other states, and in other countries by all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "wind OOS new tx" from 2022 to 2045.

11.35. All writings used to calculate the criteria air pollution emissions in California, other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping

to produce and deliver to California the amount of "wind OOS new tx" from 2022 to 2045.

11.36. All writings used to calculate the impacts to land, species of concern, waters and other environmental resources in California, in other states, and in other countries associated with all the raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "wind OOS new tx" from 2022 to 2045.

11.37. All writings used to calculate the human health impacts in California, in other states, and in other countries associated with all raw material processing, material processing, component manufacturing, final manufacturing and assembly and shipping to produce and deliver to California the amount of "wind OOS new tx" from 2022 to 2045.

12. Natural Gas Electrical Power

12.1. All writings used to calculate the installed capacity of "natural gas" electrical generation identified in 2022 Draft Scoping Plan Figure 4-5 from 2022 to 2045.

12.2. All writings used to calculate the net change in the installed capacity of "natural gas" electrical generation from 2022 to 2045.

12.3. All writings used to calculate the number of "natural gas" electrical generation facilities installed from 2022 to 2045.

12.4. All writings used to calculate the locations of instate "natural gas" electrical generation capacity installed from 2022 to 2045.

12.5. All writings used to calculate the amount of electrical power supplied by "natural gas" electrical generation from 2022 to 2045.

12.6. All writings used to calculate the cost of new "natural gas" electrical generation capacity from 2022 to 2045.

12.7. All writings used to calculate the cost of public subsidies for "natural gas" electrical generation capacity from 2022 to 2045.

12.8. All writings used to calculate the capacity factor relative to rated generation capacity of " natural gas" electrical generation from 2022 to 2045.

12.9. All writings used to calculate the hourly electrical power demand and electrical power supplied by "natural gas" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

12.10. All writings used to calculate the hourly electrical power demand and electrical power supplied by "natural gas" generation capacity in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

12.11. All writings used to calculate the retail cost of electricity supplied by "natural gas" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

12.12. All writings used to calculate the commercial cost of electricity supplied by "natural gas" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

12.13. All writings used to calculate the industrial cost of electricity supplied by "natural gas" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

12.14. All writings used to calculate the wholesale cost of electricity supplied by "natural gas" generation capacity in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

12.15. All writings used to calculate the retail cost of electricity supplied by "natural gas" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

12.16. All writings used to calculate the commercial cost of electricity supplied by "natural gas" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

12.17. All writings used to calculate the industrial cost of electricity supplied by "natural gas" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

12.18. All writings used to calculate the wholesale cost of electricity supplied by "natural gas" generation capacity in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

12.19. All writings used to calculate the cost of public subsidies for "natural gas" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

12.20. All writings used to calculate the cost of public subsidies for "natural gas" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

12.21. All writings used to calculate the amount of "natural gas" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

12.22. All writings used to calculate the amount of " natural gas" electrical generation curtailed (exceed demand) in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

13. Shed DR

13.1. All writings used to define all "electricity resources needed by 2045" that are identified as "shed DR" in 2022 Draft Scoping Plan Figure 4-5.

13.2. All writings used to calculate the electrical power demand subject to "shed DR" by measure or action from 2022 to 2045.

13.3. All writings used to calculate the net change in the electrical power demand subject to "shed DR" by measure or action from 2022 to 2045.

13.4. All writings used to calculate the locations subject to electrical power demand "shed DR" by measure or action from 2022 to 2045.

13.5. All writings used to calculate the residential electrical power demand that will be subject to "shed DR" by measure or action from 2022 to 2045.

13.6. All writings used to calculate the number of households subject to "shed DR" by measure or action from 2022 to 2045.

13.7. All writings used to calculate the number of households by income subject to "shed DR" by measure or action from 2022 to 2045.

13.8. All writings used to calculate the number of households by race subject to "shed DR" by measure or action from 2022 to 2045.

13.9. All writings used to calculate the commercial electrical power demand that will be subject to "shed DR" by measure or action from 2022 to 2045.

13.10. All writings used to calculate the industrial electrical power demand that will be subject to "shed DR" by measure or action from 2022 to 2045.

13.11. All writings used to calculate the amount of electrical power supplied by "customer solar" electrical generation from 2022 to 2045.

13.12. All writings used to calculate the cost of "shed DR" by measure or action from 2022 to 2045.

13.13. All writings used to calculate the cost of public subsidies for "shed DR" by measure or action from 2022 to 2045.

13.14. All writings used to calculate the hourly "shed DR" in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

13.15. All writings used to calculate the hourly "shed DR" in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

13.16. All writings used to calculate the retail cost of "shed DR" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

13.17. All writings used to calculate the commercial cost "shed DR" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

13.18. All writings used to calculate the industrial cost of "shed DR" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

13.19. All writings used to calculate the wholesale cost of "shed DR" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

13.20. All writings used to calculate the retail cost of electricity "shed DR" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

13.21. All writings used to calculate the commercial cost of "shed DR" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

13.22. All writings used to calculate the industrial cost of "shed DR" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

13.23. All writings used to calculate the wholesale cost of "shed DR" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

13.24. All writings used to calculate the cost of public subsidies for "shed DR" in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

13.25. All writings used to calculate the cost of public subsidies for "shed DR" in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

14. Imported Electrical Power

14.1. All writings used to calculate the amount of electrical power imports to California that occurred from 2008 to 2022.

14.2. All writings used to calculate the amount of electrical power imports that will occur to meet California electricity demand generation from 2022 to 2045.

14.3. All writings used to calculate the locations of imported electrical power generation capacity installed from 2022 to 2045.

14.4. All writings used to calculate the acreage of imported electrical power generation capacity installed from 2022 to 2045.

14.5. All writings used to calculate the cost of new imported electrical power generation capacity from 2022 to 2045.

14.6. All writings used to calculate the cost of public subsidies for imported electrical power generation from 2022 to 2045.

14.7. All writings used to calculate the hourly electrical power demand and electrical power supplied by imported electrical power in California from 2022 to 2045 for the 2022 Draft Scoping Plan "reference scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

14.8. All writings used to calculate the hourly electrical power demand and electrical power supplied by imported electrical power in California from 2022 to 2045 for the 2022 Draft Scoping Plan "proposed scenario" using the "hourly treatment" of the "electric sector" in the PATHWAYS model as described in the MRPPT, referenced in 2022 Draft Scoping Plan footnotes 296 and 438.

14.9. All writings used to calculate the retail cost of electricity supplied by imported electric power in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

14.10. All writings used to calculate the commercial cost of electricity supplied by imported electric power in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

14.11. All writings used to calculate the industrial cost of electricity supplied by imported electric power in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

14.12. All writings used to calculate the wholesale cost of electricity supplied by imported electric power in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

14.13. All writings used to calculate the retail cost of electricity supplied by imported electric power in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

14.14. All writings used to calculate the commercial cost of electricity supplied by imported electric power in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

14.15. All writings used to calculate the industrial cost of electricity supplied by imported electric power in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045

14.16. All writings used to calculate the wholesale cost of electricity supplied by imported electric power in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

14.17. All writings used to calculate the cost of public subsidies for imported electric power in the 2022 Draft Scoping Plan "reference scenario" from 2022 to 2045.

14.18. All writings used to calculate the cost of public subsidies for imported electric power in the 2022 Draft Scoping Plan "proposed scenario" from 2022 to 2045.

We note that this request reasonably describes the writings sought through their content contained therein and therefore, reasonably describes identifiable writings and information related figures and tables presented in the foregoing documents.[5] We request that such responsive records be made promptly available in an electronic format (CD, USB Drive, or Shared File Site, such as DropBox).[6] If there are hard copies that are not currently stored in an electronic format, we will arrange to inspect these documents in your office and arrange for copies to be made.

We note that the attorney-client privilege does not apply to management decisions made by lawyers serving in management roles. If you elect to assert either the attorney-client or deliberative process privilege for any documentation that is otherwise responsive to this request, we ask that you expressly disclose reliance on such a privilege claim that we can seek timely judicial review of your failure to disclose all responsive documents.

Please do not hesitate to contact Paloma Perez-McEvoy (*paloma.perez-mcevoy@hklaw.com*) if you have any initial questions about the foregoing request. We look forward to your timely transmittal of all responsive documentation. Thank you.

Sincerely yours,

[5] Gov. Code § 6257; *Cal. First Amendment Coalition v. Superior Court* (1998) 67 Cal.App.4th 159.
[6] *See e.g.,* 88 Ops.Cal.Atty.Gen. 153, pp. 12-13 (2005) (reinforcing the requirement that government agencies make identifiable public records promptly available); 89 Ops.Cal.Atty.Gen. 39, p. 3 (2006) (same).

HOLLAND & KNIGHT LLP

Jennifer L. Hernandez

cc: Richard Corey, CARB Executive Officer (rcorey@arb.ca.gov)

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June 16, 2022

Via Email

California Air Resources Board Public Records Coordinator
Office of Legal Affairs
1001 I Street
Sacramento, CA 95814
prareqst@arb.ca.gov

Re: California Public Records Act Request for Information and Data Related to the 2022 Scoping Plan Update

Dear California Air Resources Board Public Records Coordinator:

Pursuant to the California Public Records Act ("CPRA") (Gov. Code § 6250 *et seq.*), this request seeks public records[1] related to the California Air Resources Board's ("CARB") 2022 Draft Scoping Plan Update and its supporting documentation. Specifically, this request seeks public records that support the findings and conclusions presented in (1) the 2022 Draft Scoping Plan document; (2) its appendices; and (3) the AB 32 GHG Inventory Sectors Modeling Data Spreadsheet published by CARB with the 2022 Draft Scoping Plan ("2022-draft-SP-PATHWAYS-data-E3").[2]

[1] A "public record" encompasses any information relating to the discharge of an official duty. *See e.g, Braun v. Taft* (1984) 154 Cal.App.3d 332, 340; *San Gabriel Tribune v. Superior Court* (1983) 143 Cal.App.3d 762, 774. The CPRA broadly defines "public records" as any **writing** containing information relating to the conduct of the public's business prepared, owned, used, or retained by any state or local agency regardless of physical form or characteristics. Gov. Code § 6252(e). The term "writing" has also been broadly defined in a manner that does not pay regard to the writing's physical form or characteristics (handwritten, typed, electronic, or otherwise reproduced, or stored), and includes but is not limited to: written documents, photographs, photocopies, facsimiles, text messages, emails, and writings that are within a public agency's constructive possession. Gov. Code § 6252(e) & (g); *City of San Jose v. Superior Court* (2017) 2 Cal.5th 608, 623.

[2] Available at: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fww2.arb.ca.gov%2Fsites%2Fdefault%2Ffiles%2F2022-05%2F2022-draft-sp-PATHWAYS-data-E3.xlsx&wdOrigin=BROWSELINK (accessed June 8, 2022).

The public records sought have been grouped into four major topic areas that describe certain writings sought to support the findings in the foregoing materials. Below each heading is a description of the writings and information sought pursuant to this CPRA request.

1. Cost

1.1. All writings used to calculate the total cost from all sectors, measures and actions required to achieve the greenhouse gas ("GHG") emissions reductions in the "Reference Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.1.1. All writings used to calculate the cost of achieving the GHG emissions reductions from "AB 32 GHG Inventory sectors" (referenced in 2022 Draft Scoping Plan, Table 2-2) in the "Reference Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.1.2. All writings used to calculate the cost of achieving the GHG emissions reductions from "NWL sectors" (referenced in 2022 Draft Scoping Plan, Table 2-3) in the "Reference Scenario" as shown in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.1.3. All writings used to calculate the cost of achieving the GHG emissions reductions from other sectors, measures or actions not included in the costs for the "AB 32 GHG Inventory sectors" or the costs for the "NWL sectors" the "Reference Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.2. All writings used to calculate the total cost from all sectors, measures and actions required to achieve the GHG emissions reductions in the "Proposed Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.2.1. All writings used to calculate the cost of achieving the GHG emissions reductions from "AB 32 GHG Inventory sectors" (referenced in 2022 Draft Scoping Plan, Table 2-2) in the "Proposed Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.2.2. All writings used to calculate the cost of achieving the GHG emissions reductions from "NWL sectors" (referenced in 2022 Draft Scoping Plan, Table 2-3) in the "Proposed Scenario" as shown in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.2.3. All writings used to calculate the cost of achieving the GHG emissions reductions from other sectors, measures or actions not included in the costs for the "AB 32

GHG Inventory sectors" or the costs for the "NWL sectors" the "Proposed Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.3. All writings used to calculate the total cost from all sectors, measures and actions required to achieve the GHG emissions reductions in the "Proposed Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 by adding all costs attributed to the "Reference Scenario" GHG reductions shown in 2022 Draft Scoping Plan, Figure 2-1 to all costs not included in the costs attributed to the "Proposed Scenario" in 2022 Draft Scoping Plan, Figure 2-1 from 2022 to 2045.

1.4. All writings used to calculate the differences between the economic and employment "Reference Scenario" for "AB 32 GHG Inventory sectors" referenced on 2022 Draft Scoping Plan, p. 92 and the "Reference Scenario for "NWL sectors" referenced on 2022 Draft Scoping Plan, p. 97 from 2022 to 2045.

1.5. All writings used to calculate the differences between the economic and employment "Reference Scenario" for "AB 32 GHG Inventory sectors" referenced on 2022 Draft Scoping Plan, p. 92 and the "growing California economy" referenced in 2022 Draft Scoping Plan, Figure 3-2 and in subsequent figures and tables in the 2022 Draft Scoping Plan, and in 2022 Draft Scoping Plan appendices from 2022 to 2045.

1.6. All writings used to calculate the differences between the economic and employment "Reference Scenario for "NWL sectors" referenced on 2022 Draft Scoping Plan, p. 97 and the "growing California economy" referenced in 2022 Draft Scoping Plan, Table 3-1 and in subsequent figures and tables in the 2022 Draft Scoping Plan and in 2022 Draft Scoping Plan appendices from 2022 to 2045.

1.7. All writings used to calculate the differences between the economic and employment "Reference Scenario" for "AB 32 GHG Inventory sectors" referenced on 2022 Draft Scoping Plan, p. 92 and the "BAU Reference" referenced in the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

1.8. All writings used to calculate the differences between the economic and employment "Reference Scenario" for "NWL sectors" referenced on 2022 Draft Scoping Plan, p. 97 and the "BAU" referenced in the "2022-draft-sp-nwl-data-CARB" spreadsheet published by CARB with the 2022 Draft Scoping Plan from 2022 to 2045.

1.9. All writings used to calculate the total cost from all sectors, measures and actions required to achieve the GHG emissions reductions in the "Proposed Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 that are included in the economic and employment "Reference Scenario" for "AB 32 GHG Inventory sectors" referenced on 2022 Draft Scoping Plan, p. 92 from 2022 to 2045.

1.9.1. All writings used to calculate the numbers, percentage change, and other values shown in each tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan that are included in the economic and employment "Reference Scenario" for "AB 32 GHG Inventory sectors" referenced on 2022 Draft Scoping Plan, p. 92 from 2022 to 2045.

1.9.2. All writings used to calculate costs of any value shown in each tab of the "2022-draft-sp-PATHWAYS-data-E3" spreadsheet published by CARB with the 2022 Draft Scoping Plan that are included in the economic and employment "Reference Scenario" for "AB 32 GHG Inventory sectors" referenced on 2022 Draft Scoping Plan, p. 92 from 2022 to 2045.

1.10. All writings used to calculate the total cost from all sectors, measures and actions required to achieve the GHG emissions reductions in the "Proposed Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 that are included in the economic and employment "Reference Scenario" for "NWL sectors" referenced on 2022 Draft Scoping Plan, p. 97 from 2022 to 2045.

1.10.1. All writings used to calculate the numbers, percentage change, and other values shown in each tab of the "2022-draft-sp-nwl-data-CARB" spreadsheet published by CARB with the 2022 Draft Scoping Plan that are included in the economic and employment "Reference Scenario" for "NWL sectors" referenced on 2022 Draft Scoping Plan, p. 97 from 2022 to 2045.

1.10.2. All writings used to calculate costs of any value shown in each tab of the "2022-draft-sp-nwl-data-CARB" spreadsheet published by CARB with the 2022 Draft Scoping Plan that are included in the economic and employment "Reference Scenario" for "NWL sectors" referenced on 2022 Draft Scoping Plan, p. 97 from 2022 to 2045.

1.11. All writings used to calculate the total costs of achieving the GHG emission reductions in the "Proposed Scenario" shown in 2022 Draft Scoping Plan, Figure 2-1 from "AB 32 GHG Inventory sectors" and "NWL sectors," including any costs in a "Reference Scenario," a "BAU Reference" scenario or a "BAU" scenario from 2022 to 2045.

2. Employment

2.1. All writings used to calculate California annual employment by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, from 2008 to 2019.

2.1.1. All writings used to calculate California annual employment by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by county from 2008 to 2019.

2.1.2. All writings used to calculate California annual employment by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by race from 2008 to 2019.

2.2. All writings used to calculate California annual employment by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, from 2022 to 2045.

2.2.1. All writings used to calculate California annual employment by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by county from 2022 to 2045.

2.2.2. All writings used to calculate California annual employment by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by race or ethnicity from 2022 to 2045.

2.3. All writings used to calculate and compare California annual employment trends by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, from 2008 to 2019 with projected trends from 2022 to 2045.

2.3.1. All writings used to calculate and compare California annual employment trends by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by county from 2008 to 2019 with projected trends by county from 2022 to 2045.

2.3.2. All writings used to calculate and compare California annual employment trends by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by race or ethnicity from 2008 to 2019 with projected trends by race or ethnicity from 2022 to 2045.

3. Gross State Product

3.1. All writings used to calculate California annual gross state product by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, from 2008 to 2019.

3.1.1. All writings used to calculate California annual gross state product by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by county from 2008 to 2019.

3.1.2. All writings used to calculate California annual gross state product by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by race from 2008 to 2019.

3.2. All writings used to calculate California annual gross state product by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, from 2022 to 2045.

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3.2.2. All writings used to calculate California annual gross state product by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, by race or ethnicity from 2022 to 2045.

3.3. All writings used to calculate and compare California annual gross state product trends by North American Industry Classification System two-digit sector code (see e.g., https://www.census.gov/naics/reference_files_tools/2022_NAICS_Manual.pdf, pp. 16-18), or in greater detail, from 2008 to 2019 with projected trends from 2022 to 2045.

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4. AB 197

4.1. In compliance with Gov. Code §§ 38562.7 and 38562.7(a), which provide that "Each scoping plan update developed pursuant to Section 38561 shall identify for each emissions reduction measure, including each alternative compliance mechanism, market-based compliance mechanism, and potential monetary and nonmonetary incentive...(a) The range of projected greenhouse gas emissions reductions that result from the measure…" please provide:

4.1.1. All writings used to calculate the range of projected greenhouse gas emissions reductions, and any related "AB 197" projected greenhouse gas emissions reduction analysis in the 2022 Draft Scoping Plan or 2022 Draft Scoping Plan, Appendix C, that result from each of the measures identified in 2022 Draft Scoping Plan, Table 2-2 (Proposed Scenario: AB 32 GHG Inventory sectors) and any measure not otherwise listed in 2022 Draft Scoping Plan, Table 2-2 that is listed in the first left column of 2022 Draft Scoping Plan Appendix C, Table C-1 for the Proposed Scenario from 2022 to 2045.

4.1.2. All writings used to calculate the range of projected greenhouse gas emissions reductions that result from each of the measures identified in 2022 Draft Scoping Plan, Table 2-3 (Proposed Scenario: NWL sectors) and any measure not otherwise listed in 2022 Draft Scoping Plan, Table 2-3 that is listed in the first left column of 2022 Draft Scoping Plan Appendix C, Table C-2 for the Proposed Scenario from 2022 to 2045.

4.2. In compliance with Gov. Code §§ 38562.7 and Section 38562.7(b), which provide that "Each scoping plan update developed pursuant to Section 38561 shall identify for each emissions reduction measure, including each alternative compliance mechanism, market-based compliance mechanism, and potential monetary and nonmonetary incentive...(b) The range of projected air pollution reductions that result from the measure…" please provide:

4.2.1. All writings used to calculate the range of projected pollution reductions, and any related "AB 197" projected pollution reduction analysis in the 2022 Draft Scoping Plan or 2022 Draft Scoping Plan Appendix C, that result from each of the measures identified in 2022 Draft Scoping Plan, Table 2-2 (Proposed Scenario: AB 32 GHG Inventory sectors) and any measure not otherwise listed in 2022 Draft Scoping Plan,

Table 2-2 that is listed in the first left column of 2022 Draft Scoping Plan Appendix C, Table C-1 for the Proposed Scenario from 2022 to 2045.

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4.3. In compliance with Gov. Code §§ 38562.7 and 38562.7(c), which provide that "Each scoping plan update developed pursuant to Section 38561 shall identify for each emissions reduction measure, including each alternative compliance mechanism, market-based compliance mechanism, and potential monetary and nonmonetary incentive...(b) The cost-effectiveness, including avoided social costs, of the measure…" please provide:

4.3.1. All writings used to calculate the cost-effectiveness, including avoided social costs, and any related "AB 197" cost-effectiveness or avoided social costs analysis in the 2022 Draft Scoping Plan or 2022 Draft Scoping Plan Appendix C, of each of the measures identified in 2022 Draft Scoping Plan, Table 2-2 (Proposed Scenario: AB 32 GHG Inventory sectors) and any measure not otherwise listed in 2022 Draft Scoping Plan, Table 2-2 that is listed in the first left column of 2022 Draft Scoping Plan Appendix C, Table C-1 for the Proposed Scenario from 2022 to 2045.

4.3.2. All writings used to calculate the cost-effectiveness, including avoided social costs, and any related "AB 197" cost-effectiveness or avoided social costs analysis in the 2022 Draft Scoping Plan or 2022 Draft Scoping Plan Appendix C, that result from each of the measures identified in 2022 Draft Scoping Plan, Table 2-3 (Proposed Scenario: NWL sectors) and any measure not otherwise listed in 2022 Draft Scoping Plan, Table 2-3 that is listed in the first left column of 2022 Draft Scoping Plan, Appendix C, Table C-2 for the Proposed Scenario from 2022 to 2045.

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Please do not hesitate to contact Paloma Perez-McEvoy (*paloma.perez-mcevoy@hklaw.com*) if you have any initial questions about the foregoing request. We look forward to your timely transmittal of all responsive documentation. Thank you.

Sincerely yours,

HOLLAND & KNIGHT LLP

Jennifer L. Hernandez

cc: Richard Corey, CARB Executive Officer (rcorey@arb.ca.gov)