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March 21, 2025

Dear California Air Resources Board Members,

Alexandria Real Estate Equities, Inc. (“ARE”) appreciates the opportunity to comment on the California Air Resources Board’s (“CARB”) implementation of Senate Bills (“SB”) 253 and 261.

ARE (NYSE: ARE), an S&P 500® company, is a best-in-class, mission-driven life science REIT making a positive and lasting impact on the world. With our founding in 1994, ARE pioneered the life science real estate niche. We are the preeminent and longest-tenured owner, operator and developer of collaborative Megacampus™ ecosystems in AAA life science innovation cluster locations, including Greater Boston, the San Francisco Bay Area, San Diego, Seattle, Maryland, Research Triangle and New York City. As of December 31, 2024, ARE has a total market capitalization of $29.0 billion and an asset base in North America that includes 39.8 million RSF of operating properties and 4.4 million RSF of Class A/A+ properties undergoing construction. We have a longstanding and proven track record of developing Class A/A+ properties clustered in highly dynamic and collaborative Megacampus environments that enhance our tenants' ability to successfully recruit and retain world-class talent and inspire productivity, efficiency, creativity and success. ARE also provides strategic capital to transformative life science companies through our venture capital platform. We believe our unique business model and diligent underwriting ensure a high-quality and diverse tenant base that results in higher occupancy levels, lease terms, higher rental income, higher returns and greater long-term asset value.

As a leader in creating sustainable, collaborative real estate ecosystems for the life sciences industry, we believe that doing well in our business and doing good for society are inherently linked endeavors, and this belief has shaped our multifaceted business model. Our approach to environmental sustainability includes our greenhouse gas (GHG) emissions mitigation framework, climate resilience roadmap, guidelines for sustainable design and construction, and environmentally efficient operations.

ARE's GHG emissions mitigation framework focuses on reducing emissions from operations of our real estate—i.e. sources over which we have some level of control and direct access to data. As part of that framework, our Scope 3 reduction efforts target tenant-managed energy use at downstream leased assets. Operational emissions have challenging but reasonable pathways to reduction over time, and so we are able to set a GHG reduction

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target for those sources. However, we estimate the majority of our Scope 3 emissions is attributable to embodied carbon from construction materials. We have found that it is not practical to set a reduction target that covers these emissions because the availability of both reliable information and cost-effective, low-carbon alternatives is limited and beyond our control.

We annually disclose our progress on operational emissions as described above in our Corporate Responsibility Report (CRR) to promote transparency with our stakeholders. We also commission independent third parties to verify to a limited assurance level that our GHG reporting comports with the World Business Council for Sustainable Development (WBSCD) and World Resources Institute (WRI) international standard for corporate accounting and reporting emissions.

Our robust reporting practices align with voluntary frameworks such as the Global Reporting Initiative (GRI) and guidelines developed by the Task Force on Climate-related Financial Disclosures (TCFD). But, we have serious concerns about the inclusion of Scope 3 emissions in the mandatory disclosure requirements of SB 253 given the nascent state of Scope 3 calculation and estimation methodologies and limited control over Scope 3 emissions sources. In our experience, Scope 3 data-gathering in its current state is ineffective at capturing the complexities of our value chain. While emissions data associated with the operations of our buildings can be reasonably assessed using utility invoices, complete and accurate measurements of all emissions from upstream and downstream activities not within our direct control is not possible. Though we are able to obtain certain types of data with some level of assurance, efforts to calculate all emissions in our value chain would produce imprecise, incomplete data.[1] We believe that mandating Scope 3 reporting at this time will be burdensome and ineffective in producing accurate, usable data, and will inappropriately hold ARE publicly responsible for Scope 3 emissions from sources that we do not own or control, which in turn risks reputational damage to ARE and the broader industry.

[1] Indeed, the Greenhouse Gas Protocol announced in 2022 that it is determining the need for and scope of additional guidance on existing standards for emissions reporting, acknowledging the need for additional harmonization across disclosure initiatives. *See* Press Release, Greenhouse Gas Protocol, GHG Protocol to Assess The Need for Additional Guidance Building On Existing Corporate Standards (Mar. 21, 2022), https://ghgprotocol.org/blog/ghg-protocol-assess-need-additional-guidance-building-existing-corporate-standards.

The following offers our specific comments to SB 253 and SB 261 for CARB's consideration.

<u>SB 253 – Comments Regarding Scope 3 Reporting</u>

- ***Scope 3 Reporting is Inaccurate and Is Not a Reliable Tool for Accountability***

Many experts recognize serious risks in using Scope 3 reporting as a metric for accountability because Scope 3 emissions methodology double-counts emissions.[2] The Scope 3 emissions for one organization are the Scope 1 and 2 emissions of another organization.[3] This means that a single emission source or reduction can be reported by multiple companies,[4] complicating the tracking of actual emissions reductions across reporting companies and possibly under- or overestimating environmental impacts along a reporting company's value chain.[5] The duplication inherent in Scope 3 reporting does not add new information; it merely rearranges existing data into a less precise and more complex format. The downside risks from providing investors and consumers with poor quality information outweighs the less likely chance of producing some accurate and timely information upon which they can make educated decisions.

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[2] *See, e.g.,* Lambert Schneider et al., *Double Counting and the Paris Agreement Rulebook,* SCIENCE (Oct. 11, 2019) (highlighting the risks of double counting in relation to the use of carbon offsets and emphasizing the need for robust, standardized accounting rules across reporting entities); Gireesh Shrimali, *Scope 3 Emissions: Measurement and Management*, STANFORD SUSTAINABLE FINANCE INSTITUTE (Apr. 2021), scope_3_emissions_-_measurement_and_management_0_0_0_0.pdf (identifying double counting as a "key issue. . . that still need[s] to be resolved in order for Scope 3 emissions to become reliable sources of supply chain carbon risk"); Quyen Nguyen et al., *Scope 3 emissions: Data quality and machine learning prediction accuracy,* 2 PLOS CLIMATE SEC. 2 1.1 (Nov. 15, 2023), https://doi.org/10.1371/journal.pclm.0000208.

[3] *See Scope 3 Frequently Asked Questions*, GREENHOUSE GAS PROTOCOL 1, 20 (June 2022), https://ghgprotocol.org/sites/default/files/2022-12/Scope%203%20Detailed%20FAQ.pdf.

[4] *Id.* at 21 ("Double counting within scope 3 occurs when two entities in the same value chain account for the scope 3 emissions from a single emissions source (…). This type of double counting is an inherent part of scope 3 accounting . . . To ensure transparency and avoid misinterpretation of data, companies should acknowledge any potential double counting of reductions or credits when making claims about scope 3 reductions.").

[5] *See* Peter Holzapfel et al., *Electricity accounting in life cycle assessment: the challenge of double counting,* 28 LCI METHODOLOGY AND DATABASES 771 (Apr. 25, 2023) (discussing the risk of double counting from inconsistent parallel use of electricity accounting methods, which could lead to lead to under- or overestimations of environmental impacts by parties conducting life cycle assessments of electricity consumption).

Ideally, a company should use primary data collected directly from supply chain partners when calculating its Scope 3 emissions. However, supply chain partners have no legal obligation to provide this data, so collecting it would require a significant effort and has the potential to result in fragmented and incomplete disclosures with large variation due to differing underlying assumptions and estimations. The data available to reporting entities also varies substantially. Many suppliers and partners may lack the infrastructure to collect reliable data. This inconsistent data will not result in reporting that a typical investor or consumer can reliably compare across entities or time, defeating the disclosure requirement's purpose.

In our case, ARE experiences challenges in gathering primary data for applicable Scope 3 categories. ARE discloses downstream leased asset emissions in our CRR because we receive reliable utility data from tenant-managed energy use in our buildings. We also have access to some ancillary data on waste generated in operations- and business travel-related emissions. However, to satisfy the requirements of SB 253, the majority of our Scope 3 emissions would need to be calculated using estimation methods. The currently available and accepted estimation tools, including methods based on spending data and using the Environmental Protection Agency's (EPA) input and output factors, provide overly simplified assessments of that do not reflect actual emissions.[6] We likely would also need to rely on proxy data based on published emission factors. These factors include industry averages, which may not be representative of the context or jurisdiction in which they operate.[7] While proxy data and spend-based estimates are currently acceptable methodologies for estimating Scope 3 emissions under SB 253 and other voluntary reporting standards, they simply do not reflect reality, including that they do not capture emissions reductions we achieve with our vendors and suppliers, and therefore will not provide our stakeholders with an accurate picture of our upstream and downstream emissions.

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[6] For example, EPA's USEEIO supply chain GHG emission factors are based on US Environmentally-Extended Input-Output models and are presented in emissions per dollar of spend. When using a model where estimates are tied to spend, if costs in a particular area increase, it may appear that emissions have increased, even if the underlying activity remained the same and cost changes were driven by non-emissions related factors.

[7] *See* Timo Busch et al., *Corporate carbon performance data: Quo vadis?* 26 J. INDUS. ECOLOGY 350-63 (2022) (finding that the quality and integrity of estimated Scope 3 datasets are unknown and that correlation across aggregated Scope 3 values from prominent models is "surprisingly low.").

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Ensuring consistency across different companies is impossible without fully developed and standardized methodologies, adopted across the value chain[8] For example, the GHG Protocol gives reporting companies significant discretion to determine the boundaries of their Scope 3 reporting through use of a "relevance assessment" and company-specific, rather than industry standardized, value chain mapping policies.[9] Inconsistent assessments about what portions of value chains should be included in reporting will undermine stakeholders' ability to meaningfully compare information across entities and time.[10] It may also create liability exposure for companies when investors and customers inevitably rely upon the emissions reports in their decision making, as is intended by SB 253.

While CARB could include safe harbor protections for reporting companies that rely on acceptable estimation methodologies to reduce liability risk,[11] the inherently flawed and unreliable results still will likely create stakeholder uncertainty and confusion as to the significance and validity of Scope 3 claims. Ultimately, Scope 3 data reporting cannot deliver on the law's stated goal to provide "California investors, consumers, and other stakeholders" with "transparency from companies regarding their greenhouse gas (GHG) emissions to inform their decisionmaking."[12]

- ***Scope 3 Reporting Unfairly Holds Entities Responsible for Third-Party Emissions***

As defined in SB 253, Scope 3 encompasses emissions from sources not owned or controlled by the reporting company, including those generated by suppliers and customers. This reporting effectively requires companies to misleadingly represent the emissions of other entities as their own. This approach raises fundamental questions of fairness and

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[8] *See* Nguyen, *supra* note 2 at 1[1] (noting that Scope 3 disclosures have been inconsistent and unsystematic, and so long as the composition of Scope 3 reporting is not well defined, comparisons across entities are "apples to oranges" and estimated values are necessary to fill in gaps).
[9] WORLD RESOURCES INSTITUTE AND WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT, THE GREENHOUSE GAS PROTOCOL: CORPORATE VALUE CHAIN (SCOPE 3) STANDARD 1, 58-63 (2011).
[10] *See Deloitte's Roadmap: Greenhouse Gas Protocol Reporting Considerations, Chapter 6.2,* DELOITTE, https://dart.deloitte.com/USDART/home/publications/deloitte/additional-deloitte-guidance/greenhouse-gas-protocol-reporting-considerations/chapter-6-ghg-protocol-scope-3/6-2-boundary-requirements (acknowledging that it is not always possible to map a value chain in its entirety and encouraging the use of averages across products and suppliers).
[11] *See, e.g.,* the Security and Exchange Commission's proposal for a safe harbor provision. 89 FR 21668, Part 2, J.
[12] CA Senate Bill No. 253, § 1(e).

accountability, as companies are being held responsible for emissions they did not produce and do not directly control. It also raises concerns about accuracy and verification and creates potential legal and reputational risks for reporting companies, which could cause real financial and reputational damage.

For example, under a Scope 3 reporting regime, ARE would be required to report emissions associated with the materials used to construct our buildings, even though we do not manufacture these materials. ARE has limited influence over how these emissions are produced, making it challenging to implement effective reduction strategies. Yet, we estimate that most of our Scope 3 emissions are attributable to embodied carbon from construction materials.[13] While we seek to reduce these emissions and actively work with suppliers to minimize their environmental footprint, setting portfolio-level reduction targets that cover emissions from construction materials is impractical due to the limited availability of cost-effective, low-carbon materials with product-specific environmental declarations. Holding ARE publicly accountable for the emissions produced by our suppliers, which ARE cannot directly reduce, may mislead the public about ARE's efforts to mitigate emissions.

Critically, under a Scope 3 reporting regime, companies must verify data they do not control or directly collect. Even if a reporting entity's suppliers disclose their emissions information, the entity may not be sufficiently confident in the accuracy of such information to include it in public reporting. The Securities and Exchange Commission admitted as much when deciding to exclude Scope 3 emissions from its final climate disclosures rules.[14]

- ***Scope 3 Reporting is Overly Burdensome in Relation to Any Benefits***

SB 253 Scope 3 reporting requirements create an unrealistic expectation that non-reporting entities will produce meaningful output. The process of estimating and tracking Scope 3 emissions is burdensome and resource-intensive for reporting entities and entities across the supply chain. Verifying third-party GHG emissions and related risk issues with enough certainty to provide meaningful information to investors and consumers is more

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[13] *See* ARE's 2023 CR report at p. 16, https://www.are.com/cr/ARECR2023.pdf.

[14] 89 FR 21668, https://www.federalregister.gov/d/2024-05137 (noting that it "may be difficult to obtain activity data from suppliers and other third parties in a registrant's value chain, or to verify the accuracy of that information.").

difficult and costly than verifying Scope 1 and Scope 2 emissions, and may otherwise confuse or mislead investors, consumers, and the general public.[15]

ARE would need to collect data from our vast, complex network of suppliers and customers, many of whom may lack sophisticated data collection technologies or the resources to comply with our requests. Requiring our suppliers to measure and provide emissions data may also include the need to negotiate or renegotiate contracts. We expect this to create a significant administrative and financial burden for both us and our suppliers, with limited assurance of data accuracy. This burden far outweighs the potential benefits of Scope 3 reporting, which, as discussed above, are limited due to the relative unreliability of the underlying disclosures.

SB 253 – Recommendations Regarding Scope 3 Reporting

In light of the foregoing, **we respectfully ask that CARB:**

- **Exclude Scope 3 reporting in its implementation of SB 253 or make Scope 3 reporting voluntary.** Scope 3 emissions reporting is burdensome, costly, and generally unreliable. We propose that the regulations promulgated under SB 253 should focus on requirements that promote accurate and reliable Scopes 1 and 2 reporting. To the extent CARB seeks to understand, to some extent, Scope 3 emissions associated with industries operating in California, CARB should rely on existing industry-wide estimates, rather than requiring reporting of what will largely be disaggregated estimates at the company-level.

However, if CARB enacts regulations requiring Scope 3 reporting, we respectfully request that CARB consider the following:

- Significantly **delayed reporting deadlines and a longer timeline for heightened assurance requirements** to permit methodologies for calculating Scope 3 emissions to mature.

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[15] In comments to the Securities and Exchange Commission on its Scope 3 reporting rules, large reporting entities estimated compliance costs for Scope 3 reporting as high as $15.6 million over five years, requiring 650 hours of labor in the first year and 100 hours annually in subsequent years. 89 FR 21668, Part IV, C (3)(a).

- **Built-in iterative, ongoing evaluation and re-evaluation of reporting timelines and requirements** by CARB based on feedback from industry and experts on the state of ascertainable data and estimation methods.
- Limiting Scope 3 reporting obligations **only to aspects over which the reporting entity has some level of control** (e.g., business travel) and/or **data that is directly ascertainable** to the reporting entity (e.g., downstream asset electricity consumption).
- **Establish a civil liability and enforcement safe harbor** for entities that report in good faith and according to the regulatory requirements.
- Omit any requirement that reporting entities verify the accuracy of the reported data, and instead **limit reporters' verification for Scope 3 to an attestation that the company made a good faith, reasonable effort to obtain and calculate data using the widely acceptable methodologies available at the time**.

SB 261 – Comments Regarding Reporting Standards

As a company that voluntarily issues a TCFD-aligned disclosure, ARE supports SB 261's (i) alignment with TCFD and (ii) anti-duplication terms that permit companies to satisfy SB 261 obligations with reports prepared voluntarily under widely accepted standards or under other jurisdictions' regulatory requirements. ARE encourages CARB in implementing SB 261 to preserve the flexibility and breadth of options for reporting standards that currently exists within the statute.

ARE further believes that the qualitative disclosure of climate risks is sufficient to achieve SB 261's goals of encouraging "economic actors to plan for and adapt to climate-related risks to their businesses and the economy,"[16] and we strongly urge CARB to not require quantitative financial disclosures in its implementation of SB 261.

Quantitative assessments may rely largely on underlying assumptions and uncertain climate projections that will produce calculations that distort areas of risk, resulting in

[16] CA Senate Bill No. 261, § 1(c).

misleading disclosures and expected decision-making based on inaccurate data.[17] Quantitative risk assessment also may rely on historical data, which may not accurately reflect the unprecedented events associated with climate change.[18] Meanwhile, the resulting incorrect or inconsistent assessments of materiality will expose reporting entities to potential liability, including lawsuits from shareholders.

The Securities and Exchange Commission (SEC) recognized the potential challenges related to quantitative reporting when finalizing its own rules on climate risk disclosure.[19] Thus, despite the agency's traditional emphasis on quantitative financial reporting, the SEC gave reporting entities the flexibility to determine whether and how to quantitatively report on a variety of climate-risk metrics.[20] We encourage CARB to adopt a similar approach for compliance with SB 261.

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[17] *See generally,* Monica Ainhorn Morrison & Peter Lawrence, *Understanding Model-Based Uncertainty in Climate Science*, *in* HANDBOOK OF PHILOSOPHY OF CLIMATE CHANGE (Pellegrino, G., Di Paola, M. eds., Springer 2023).

[18] *See* Noah S, Diffenbaugh, *Verification of extreme event attribution: Using out-of-sample observations to assess changes in probabilities of unprecedented events,* 6 SCIENCE ADVANCES (2020), https://doi.org/10.1126/sciadv.aay2368 (discussing how attribution modeling using data from 1961-2005 consistently underestimated the probability of extreme weather events for the 2006-2017 period); *see also*, FEDERAL RESERVE, PILOT CLIMATE SCENARIO ANALYSIS EXERCISE: SUMMARY OF PARTICIPANTS' RISK-MANAGEMENT PRACTICES AND ESTIMATES (2004) available at: https://www.federalreserve.gov/publications/files/csa-exercise-summary-20240509.pdf (reporting the results of a pilot study in which major banks modeled their own climate risk and finding that such risks are "highly uncertain and challenging to measure," including because of a lack of data and analytical capacity, reliance on vastly oversimplified climate-transition models).

[19] The Enhancement and Standardization of Climate-Related Disclosures for Investors, 17 C.F.R. §§ 210, 229, 230, 232, 239, and 249, p. 150 (2024) ("To further streamline the scenario analysis disclosure requirement, we have removed the proposed provision stating that the disclosure should include both qualitative and quantitative information. . . We recognize that, as noted by some commenters, scenario analysis practices are still evolving, and that, in the early stages of use, a registrant's disclosure regarding its use of scenario analysis may be qualitative.").

[20] *See Id*. at p. 150 (permitting qualitative assessment of: 1) scenario analyses, 2) climate-related targets and goals and prospective activities related to those goals, 3) how the development of reporting estimates and assumptions were impacted by exposures to risks and uncertainties from severe weather and other natural conditions, 4) the nature of expenses attributable to climate risk mitigation activities, and 5) the financial impacts of both mitigation and adaptation activities).