

Comparing disclosure requirements for companies participating in voluntary carbon markets in the United States

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When a company makes a net-zero goal, it commits to emit less carbon dioxide (CO₂) than it removes from the atmosphere by a specified date.¹ Many companies first prioritize reducing emissions from their value chains and then look to fund projects to offset any remaining emissions.² Voluntary carbon markets (VCMs) facilitate the purchase and sale of emissions reduction credits for these projects, which come in the form of carbon offsets and renewable energy certificates (RECs).³ A carbon offset is a tradable instrument issued to certify that the owner has reduced, removed, or avoided a ton CO₂ or CO₂ equivalent.⁴ A REC is a tradable instrument issued to certify that the owner has funded a megawatt hour of renewable electricity delivered to the grid.⁵ Companies often purchase RECs to lower their scope 2 emissions, which are emissions associated with the energy they consume.⁶

In recent years, stakeholders, including environmental NGOs, have raised concerns about the integrity of offsets and RECs, pointing out that their quality is highly variable and that many projects may not reliably cut emissions.⁷ To empower investors and consumers to understand more about offsets and RECs that companies buy, the [Securities and Exchange Commission \(SEC\)](#) and [the state of California](#) will require companies to disclose information about their participation in VCMs.

¹ The University of Oxford, *What is Net Zero?*, <https://netzeroclimate.org/what-is-net-zero-2/>, last visited (Apr. 1, 2024).

² In some cases, activists have criticized companies that purchase cheap offsets *instead of* reducing emissions from their operations. Net zero goals also stand in contrast with absolute zero goals, in which a company avoids emitting greenhouse gases into the atmosphere, getting rid of the need for carbon credits. *Id.*; see also Varsha Ramesh Walsh & Michael Toffel, *What Every Leader Needs to Know About Carbon Offsets*, Harv. Bus. Rev. (Dec. 15, 2023), https://hbr.org/2023/12/what-every-leader-needs-to-know-about-carbon-offsets?utm_medium=paidsearch&utm_source=google&utm_campaign=domcontent&utm_term=Non-Brand&tpcc=paidsearch.google.dscontent&gad_source=1&gclid=CjwKCAjwqmwBhBVEiwAL-WAYanHjv2h8aZbfM2HLK04TEE4-SbxERJbH1jg9ObRtlvAelpvWGmKoBoCV28QAvD_BwE.

³ RECs are also known as renewable energy credits. There are also compliance markets, in which a government requires polluters to participate through carbon taxes or cap-and-trade mechanisms. Compliance markets are not the focus of this paper. Zach Stein, Net Zero, Carbon Collective, <https://www.carboncollective.co/sustainable-investing/net-zero> (Apr. 1, 2024); see also Ecosystem Marketplace, *All in on Climate: The Role of Carbon Credits in Corporate Climate Strategies* (Oct. 2023) <https://app.hubspot.com/documents/3298623/view/688132803?accessId=5f7206>.

⁴ For more background on the carbon offset market, see [What Every Leader Needs to Know About Carbon Offsets](#), *supra* note 2.

⁵ EPA, *Offsets and RECs: What's the Difference?*, https://www.epa.gov/sites/default/files/2018-03/documents/gpp_guide_recs_offsets.pdf (last visited Mar. 29, 2024).

⁶ Anders Bjorn et al., *Renewable Energy Certificates Threaten the Integrity of Corporate Science-based Targets*, 12 *Nature Climate Change* 539 (2022).

⁷ For example, researchers point out that RECs often do not lead to additional renewable energy production. *Id.* Similarly, the Guardian released two reports in 2023 finding that a large percent of carbon offset projects do not lead to additional emissions reductions. See, e.g., The Guardian, *Revealed: more than 90% of rainforest carbon offsets by biggest certifier are worthless, analysis shows*, <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe> (Jan. 18, 2023); see also, *Revealed: Top Carbon Offset Projects May Not Cut Planet-Heating Emissions*, <https://www.theguardian.com/environment/2023/sep/19/do-carbon-credit-reduce-emissions-greenhouse-gases> (Sep. 2023).



California's law is intended to protect consumers and the public, while the SEC's rule is intended to protect investors. These different objectives may explain some of the differences between the requirements. For example, California will require public and private companies that make claims about their emissions to disclose qualitative information on their website about their offsets if they: (1) operate in California or (2) purchase or use offsets that were sold within the state. Additional requirements will apply to companies that market or sell offsets within the state. By comparison, the SEC will require public companies that have offsets or renewable energy credits (RECs) as a *material* part of their climate plans or goals to disclose quantitative and qualitative information about their offsets and RECs in their public filings.

In addition to these disclosure regimes, the White House and the Departments of Energy, Agriculture, and Treasury released [joint guidance outlining some key features of high-integrity voluntary carbon markets](#) in May 2024, and the Commodities Future Trading Commission and California false advertising law may soon regulate the marketing of offsets and RECs in the United States.

In this piece, I review the new VCM disclosure requirements. I explain the SEC's and California's requirements, and consider how the regimes' intended audiences and purposes may differ and present a [summary table](#) that compares the two disclosure regimes. I conclude by explaining other recent federal actions and other upcoming VCM proposals that we will be watching. For the latest updates on the SEC's disclosure regulation, see our [financial regulation tracker page](#).

I. Comparison of the disclosures required by the SEC and California

California's Voluntary Carbon Market Disclosures Act

In October 2023, along with [two other climate-related disclosure laws](#), California passed the Voluntary Carbon Market Disclosures Act (AB-1305), which requires companies to make annual disclosures about their offset projects on their websites. The law applies to public and private companies regardless of size or annual revenue if they: (1) buy or use offsets and operate in California, (2) purchase or use offsets that were sold in California, or (3) market or sell offsets in California.⁸

As I discussed in [an earlier paper on California's three laws](#), companies that buy or use offsets and "make[] claims" about their carbon dioxide or greenhouse emissions or carbon neutrality, must disclose:

- who they are buying the offset from;
- any project identification number, offset registry or program, and project name;
- the project type (e.g., carbon removal, avoided emission) and location;
- which protocol the seller uses to estimate emissions reductions or removal benefits; and

⁸ Additionally, a third section of AB-1305 applies to any company "that makes claims regarding the achievement of net zero emissions, claims that the entity, a related or affiliated entity, or a product is 'carbon neutral,' or makes other claims implying the entity, related or affiliated entity, or a product does not add net carbon dioxide or greenhouse gases." This section of the law requires these companies to post "[a]ll information documenting how, if at all, a 'carbon neutral,' 'net zero emission,' or other similar claim was determined to be accurate or actually accomplished and how interim progress toward that goal is being measured. This information may include, but not be limited to, disclosure of independent third-party verification of all of the entity's greenhouse gas emissions, identification of the entity's science-based targets for its emissions reduction pathway, and disclosure of the relevant sector methodology and third-party verification used for the entity's science-based targets and emissions reduction pathway." A.B. 1305, 2023-2024 Leg. (Cal. 2023).



- any third-party validation of the project.

Companies that market or sell offsets must disclose:

- which protocol the company uses to estimate emissions reductions or removal benefits;
- the project type, location, timeline, and start date;
- any changes in the project, including dates and quantities of the changes as well as the durability period for any project that the seller knows or should know is less than the atmospheric lifetime of CO₂;
- whether the project meets any nonprofit or legal standards and whether there is any third-party validation of the project;
- annual emissions reduced or carbon removed; and
- if a seller fails to meet projected emissions or removal benefits, any “accountability measures” that the seller will take.

However, the law does not direct CARB or any other regulatory body to oversee or enforce these disclosures. Rather, it authorizes state prosecutors to enforce the law through civil penalties of \$2,500 per day per violation up to \$500,000 for each violation of failing to disclose or disclosing inaccurate information. Questions remain about how prosecutors will interpret and enforce the law. For example, the law does not define “operate” or “makes claims,” and prosecutors will need to determine how to interpret these words and which companies they seek to enforce violations.⁹

Additionally, stakeholders have questioned whether the law applies to RECs. On March 1, 2024, California’s Attorney General received a request asking the office to opine on whether a REC is a voluntary carbon offset for the purpose of AB-1305.¹⁰ Later that month, Assemblymember Gabriel introduced a new bill, AB-2331, which would amend certain features of AB-1305. The new bill would clarify that RECs issued by an accounting system of government regulatory body, as part of a virtual power purchase agreement,¹¹ or as part of a clean fuel standard are not regulated by this disclosure

⁹ Additionally, although the statute took effect on January 1, 2024, the bill’s author Jesse Gabriel wrote a letter to the California Assembly stating that he intended for disclosures to begin on January 1, 2025. With this clarification, prosecutors have not started enforcing the law, although some companies have posted their offset disclosures in preparation for compliance. Letter of Legislative Intent from Assembly Member Jesse Gabriel to Sue Chief Clerk of the Assembly on Assembly Bill No. 1305 (Jan. 3, 2024) published in Assembly Daily Journal, <https://clerk.assembly.ca.gov/sites/clerk.assembly.ca.gov/files/adj010324.pdf>. See, e.g., Xerox, Voluntary Carbon Offsets Disclosure in Accordance with California Assembly Bill No. 1305 (Jan. 1, 2024), <https://www.xerox.com/downloads/usa/en/e/AB1305-VCO-Disclosure.pdf>; Shell, California Assembly Bill 1305, <https://www.shell.us/terms-of-use/california-disclosures-and-transparency.html> (last visited Apr. 1, 2024); Kaiser Permanente, California AB-1305: Our emissions commitments and disclosures, <https://about.kaiserpermanente.org/commitments-and-impact/healthy-communities/improving-community-conditions/environmental-stewardship/ab-1305-emissions-disclosure> (last visited Apr. 1, 2024).

¹⁰ California Attorney General’s Office, Monthly Opinion Report (Mar. 1, 2024) <https://oag.ca.gov/system/files/opinions/reports/February%2C%202024.pdf>.

¹¹ In a purchase power agreement, a company enters a long-term contract to purchase power from a power project. The buyer typically provides instrumental financing to capitalize the renewable energy project, and therefore, purchase power agreements are often seen as more reliable than unbundled RECs. See US DOE Better Buildings Solution Center, *What is a purchase power agreement?*, <https://betterbuildingssolutioncenter.energy.gov/financing-navigator/option/power-purchase-agreement> (last visited Apr. 2, 2024); see also Paul Gillin, *RECs, PPAs, and Other Paths to Renewable Energy*, <https://www.datacenterfrontier.com/special-reports/article/11427326/recs-ppas-and-other-paths-to-renewable-energy> (June 9, 2022).



law.¹² Assemblymember Gabriel noted that the new bill is intended to “provide clarity around implementation and enforcement of existing law.”¹³

The SEC Climate Disclosure Rule

In March 2024, the [SEC finalized its climate-disclosure rule](#), which among other things, requires public companies to disclose information about offsets or RECs if they have been used as a material part of a company’s plan to achieve their climate targets or goals.¹⁴ Where a company determines that their use of offsets or RECs is material, they must disclose:

- the amount of CO₂ avoided, reduced, or removed or renewable energy generated;¹⁵
- who issued the offset or REC;¹⁶
- the type of offset (carbon avoided, reduced, or removed) or REC (bundled or unbundled);¹⁷
- a description and location of the project;
- any registries the offsets or RECs belong to or other authentication;
- costs of the offsets or RECs;¹⁸
- aggregate annual capitalized costs, expenditures expensed, and losses for offsets and RECs;¹⁹
- the beginning and ending balances of capitalized offsets and RECs for the fiscal year;
- where to find these costs, expenditures, and losses on the income statement or balance sheet;²⁰ and
- the company’s accounting policy for offsets and RECs.²¹

The SEC’s rule also requires the disclosure of gross scope 1 and 2 greenhouse gas if they are material, meaning that offsets *will not* factor into companies’ material emissions disclosures.²² The SEC notes that disclosure of gross emissions will help investors understand “the degree to which a registrant’s strategy relies on offsets”...which is useful to investors “because [offsets’] use exposes the registrant to offset market fluctuations [and] also because such use may indicate heightened transition risk exposure to the extent governments seek to regulate their use.”²³ However, RECs may factor into a company’s scope 2 emissions, depending on which calculation methodology the

¹² A.B. 2331, 2023-2024 Leg. (Cal. 2024).

¹³ *Voluntary Market Disclosures Act: Hearing on A.B. 2331 before the Assembly Comm. on Appropriations*, 2024 Leg. 2023-2024 Leg. Sess. (Cal. 2024) (Statement of Purpose by Assemblymember Jesse Gabriel), https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202320240AB2331.

¹⁴ Securities and Exchange Commission, *The Enhancement and Standardization of Climate-Related Disclosures for Investors* (March 6, 2024), <https://www.sec.gov/files/rules/final/2024/33-11275.pdf> (“SEC Final Rule”).

¹⁵ SEC Final Rule p. 219.

¹⁶ SEC Final Rule p. 219, n. 879.

¹⁷ Bundled RECs are sold with physical electricity as part of the same contract. They are generally seen as a more reliable source of emissions reductions than unbundled RECs. An unbundled REC does not require a company to change its existing power contract. *Id.*; see also EPA, *Unbundle Electricity and Renewable Energy Certificates*, <https://www.epa.gov/lmop/unbundle-electricity-and-renewable-energy-certificates> (last visited Apr. 2, 2024). SEC Final Rule p. 219, n. 879.

¹⁸ SEC Final Rule p. 219.

¹⁹ SEC Final Rule at pp. 464-469.

²⁰ Unlike weather events and natural disasters, offsets and RECs disclosures are not subject to the one percent disclosure threshold. SEC Final Rule at pp. 464-65.

²¹ The proposed rules would have required additional disclosures on offsets and RECs that were not included in the final rule. SEC Final Rule at pp. 119, 489.

²² SEC Final Rule p. 250.

²³ *Id.*



companies uses. As the SEC explains, one of the two most common methodologies for calculating scope 2 emissions, called the market-based method, can include RECs.²⁴

The final SEC rule requires compliance starting in 2026 for fiscal year 2025 reports, and compliance will be phased in over three years based on the size of the company.²⁵ Although the rule includes a safe harbor from private liability for forward-looking targets, the safe harbor explicitly excludes offsets and RECs.²⁶ Thus, information about offsets and RECs could be subject to private litigation as well as SEC enforcement actions. However, the rule is currently being litigated—republican states, industry groups, and environmental groups have all challenged the rule, the Fifth Circuit temporarily blocked it, and the Eighth Circuit will hear the consolidated case against it in the coming months.²⁷ On April 4, 2024, the SEC temporarily stayed implementation of the rule pending judicial review.²⁸

Key Differences Include Intended Audience and Purpose

While California’s law and the SEC’s rule share many features, they serve different intended audiences. California’s AB-1305 is intended to protect consumers and the public. In passing the bill, author Assemblymember Gabriel told the California Assembly Floor that the bill is intended to “allow[] researchers and the public to better evaluate the validity of the credits being sold” and to “give consumers a meaningful tool to decide which projects are worth investing in to reduce their carbon footprint.”²⁹ The SEC’s rule, in contrast, is focused on providing investors “consistent, comparable, and reliable information” so that they can make “informed assessments of the impact of climate-related risks on current and potential investments.”³⁰ For offsets and RECs, the Commission explained that the rule “will help investors evaluate the role of [offsets and RECs] in a registrant’s climate-related strategy and help them assess the likely financial effects of a disclosed material transition risk.”³¹

These distinct audiences may explain some of the differences in the two regimes. California’s simple, qualitative disclosures on a website might be the most decision-useful information for the public. Moreover, the law may apply only to companies that “make claims” about their emissions because

²⁴ A company that does factor RECs into its scope 2 emissions should make clear that they are doing so. See SEC Final Rule, p. 250 n. 1030, *citing* World Resources Institute, GHG Protocol Scope 2 Guidance (2015), Chapter 4, available at https://ghgprotocol.org/sites/default/files/standards/Scope%20%20Guidance_Final_Sept26.pdf.

²⁵ SEC Final Rule p. 585.

²⁶ “The safe harbor provision provides as non-exclusive examples of historical facts that are excluded from the safe harbor information related to carbon offsets or RECs described pursuant to a target or goal and a registrant’s statements in response to Item 1502(e) (transition plan disclosure) or Item 1504 (targets and goals disclosure) about material expenditures actually incurred. Like the terms of a material contract, parties covered by the safe harbor should know with reasonable certainty information about a purchased carbon offset or REC, such as the amount of carbon avoidance, reduction, or removal represented by the offset or the amount of generated renewable energy represented by the REC, as well as the nature and source of the offset or REC, and should not need the protection of a forward-looking safe harbor if those items are required to be disclosed pursuant to Item 1504.” SEC Final Rule p. 399.

²⁷ *In Re: Securities and Exchange Commission, The Enhancement and Standardization of Climate-Related Disclosures for Investors*, Issued on March 6, 2024, J.P.M.L., MCP No. 180 (8th Cir.).

²⁸ *In the Matter of the Enhancement and Standardization of Climate-Related Disclosures for Investors*, Release No. 99908, File No. S7-10-22 (Apr. 4, 2024), <https://www.sec.gov/files/rules/other/2024/33-11280.pdf>.

²⁹ Voluntary carbon offset disclosures, AB-1305 Assembly Committee on Natural Resources, 2023-2024 Leg. Sess. (Cal. 2023) (statement of bill author Assemblyman Jesse Gabriel).

³⁰ SEC Final Rule, p. 36.

³¹ SEC Final Rule, p. 489.



such claims could attract climate-conscious consumers. For investors, however, the SEC has required more detailed carbon and financial accounting which may lead to greater comparability.

The table below compares key differences between the two regimes:

Table 1. Comparison of offset disclosure requirements of the SEC and California (see Appendix A for more details)

Rule Component	SEC Climate Disclosure Rule	California AB 1305
Products		
Offsets	✓	✓
RECs	✓	? ³²
Covered Companies		
Public Companies	✓	✓
Private Companies		✓
Offset Sellers		✓
Required Disclosures		
Quantity of carbon avoided, reduced, or removed	✓	
Issuer/seller of offset or REC	✓	✓
Cost of offset or REC, other financial information	✓	
Project name, type, location	✓	✓
Registry, protocol used or third-party verification	✓	✓
Form of disclosure		
Annual Filing	✓	
Website		✓
Compliance date		
Starting in 2025	✓ ³³	✓ ³⁴

II. Recent guidance and regulatory updates to watch

Along with these disclosure requirements, in May 2024, the Biden administration issued a [Voluntary Carbon Markets Joint Policy and Statement of Principles](#), which frames a vision for a high-integrity voluntary offsets markets, including robust standards in credit generation, credit use, and the credit marketplace, with climate and environmental justice protections. The administration explains that, with the right guardrails in place, voluntary carbon markets can play a role in “unlocking capital and demand for real, additional, lasting, and independently verified emissions reductions and removals.”

Other regulatory bodies are also considering how to regulate the trade of offsets and RECs in the United States. At the federal level, the Commodities Future Trading Commission recently issued a proposed guidance document that would outline evaluation criteria for voluntary carbon offsets traded on contract or futures markets.³⁵ California’s legislature also continues to consider offset regulations; a newly introduced bill (SB-1036) would make it illegal for a person to issue, certify,

³² The attorney general’s opinion will provide some clarity, as will AB 2331 if it passes.

³³ Phased in by company size.

³⁴ Likely timing.

³⁵ Commission Guidance Regarding the Listing of Voluntary Carbon Credit Derivative Contracts; Request for Comment, 88 Fed. Reg. 89410 (Dec. 27, 2023).



market, or sell an offset if they know or should know the emissions reductions are unlikely to be quantifiable, real, or additional.³⁶

These additional requirements and guidance may also shape how companies buy and sell offsets in years to come. We will continue to follow legislation and litigation related to the SEC and California disclosure regimes. [Follow our tracker page for the latest updates.](#)

³⁶ Under SB-1036, it would also be illegal for a person maintain an offset on a registry, market, make available for sale, or sell if the person knows that the reductions are unlikely to be quantifiable, real, and additional. It would also be illegal to market or sell an offset if “the person knows or should know that the durability of the voluntary carbon offset’s GHG reductions or GHG removal enhancements is less than the atmospheric lifetime of carbon dioxide emissions, unless the person explicitly markets the voluntary carbon offset as not being physically equivalent to the climate impact of carbon dioxide emissions.” S.B.1036, 2023-2024 Leg. (Cal. 2024).



Appendix A: Detailed comparison of offset disclosure requirements of the SEC and California

Rule	SEC Climate Disclosure Rule	California AB 1305
Products	<ul style="list-style-type: none"> - Offsets - RECs 	<ul style="list-style-type: none"> - Offsets - Unclear how it will apply to RECs³⁷
Companies that must disclose about their participation in VCMs	<ul style="list-style-type: none"> - Public companies that have offsets or RECs as a material part of their plan to achieve their climate-related targets or goals 	<p>Public and private companies that</p> <ul style="list-style-type: none"> - buy or use offsets, operate in California, and make claims about their emissions - buy or use offsets that were sold in California and make claims about their emissions - sell or market offsets in California
Required disclosures	<ul style="list-style-type: none"> - How much carbon was avoided, reduced or removed by the company's offsets; - How much renewable energy was generated by the company's RECS;³⁸ - What entity issued the offset or REC;³⁹ - Whether the REC was bundled or unbundled;⁴⁰ - The type of project (e.g., carbon removal, avoided emission);⁴¹ - The project location - A description of the projects; - Where applicable, which registries offsets or RECs belong to and any other authentication; - Costs of the offsets or RECs;⁴² - Aggregate annual capitalized costs for offsets and RECs; - Aggregate annual expenses expensed for offsets and RECs; - Aggregate annual losses incurred on the capitalized offsets and RECs; - The beginning and ending balances of offsets and RECs for the year; - Where on the income statement or balance sheet the costs, 	<p>Firms that buy or use offsets:</p> <ul style="list-style-type: none"> - who they are buying the offset from; - the project identification number (if there is one); - the offset registry or program and the project name from the registry or program (if there is one); - the type of project type (e.g., carbon removal, avoided emission) - The project location; - which protocol the seller uses to estimate emissions reductions or removal benefits; - any third-party validation of the project. <p>Firms that market or sell offsets within the state</p> <ul style="list-style-type: none"> - which protocol the company uses to estimate emissions reductions or removal benefits; - the project's location, timeline, and start date; - any changes in the project, including dates and quantities of the changes; - the type of project (e.g., carbon removal, avoided emissions); - whether the project meets any nonprofit or legal standards;

³⁷ The attorney general's opinion will provide some clarity, as will AB 2331 if it passes.

³⁸ SEC Final Rule p. 219

³⁹ SEC Final Rule p. 219, n. 879.

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² SEC Final Rule p. 219



	<p>expenditures, and losses appear; and</p> <ul style="list-style-type: none"> - The company's accounting policy for offsets and RECs. 	<ul style="list-style-type: none"> - the durability period for any project that the seller knows or should know (if less than the atmospheric lifetime of carbon dioxide); - any third-party validation of the project; - annual emissions reduced or carbon removed; and - if a seller fails to meet projected emissions or removal benefits, the law requires sellers to disclose any "accountability measures" they take.
Form of disclosure	SEC filings	On the company's website
Timelines	Beginning with FY2025 disclosures, depending on company size	Likely Jan 1, 2025
Enforcement	Private litigation or SEC Division of Enforcement action	Civil prosecution