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ROB BONTA
Attorney General

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| OPINION | : | |
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| of | : | No. 24-201 |
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| ROB BONTA | : | July 23, 2024 |
| Attorney General | : | |
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| KARIM J. KENTFIELD | : | |
| Deputy Attorney General | : | |

The HONORABLE STEVEN BRADFORD, STATE SENATOR, and the HONORABLE COTTIE PETRIE-NORRIS, STATE ASSEMBLYMEMBER, have requested an opinion on a question relating to regulation of greenhouse gases.

QUESTION PRESENTED AND CONCLUSION

Does the term “voluntary carbon offset” in Assembly Bill 1305 include renewable energy credits (RECs) used outside of the State’s regulatory programs?

No, the term “voluntary carbon offset” does not include RECs used outside of the State’s regulatory programs because RECs do not claim to reduce greenhouse gases in the atmosphere or prevent greenhouse gas emissions that would otherwise have occurred.

BACKGROUND

As awareness of climate change continues to grow, individuals and businesses are increasingly interested in reducing the greenhouse gas emissions associated with their activities.¹ One instrument used to achieve that goal is a “carbon offset.” A “carbon

¹ See, e.g., Assemblymember Jesse Gabriel, Fact Sheet, AB 1305—Voluntary Carbon Offset Transparency (Feb. 27, 2023) (Bill Author Fact Sheet).

offset is when one entity” who wishes to reduce its emissions footprint without altering its activities “pays another entity” to implement emissions reductions.² An offset seller might promise to remove existing greenhouse gases from the atmosphere—for example, by growing a forest or installing machines that remove carbon dioxide from the air.³ Or a seller might promise to prevent future emissions that would otherwise have occurred—for example, by protecting a forest that would otherwise be destroyed.⁴

In California, carbon offsets can be used to satisfy certain state regulatory requirements. Polluters subject to emissions limits under the State’s Cap-and-Trade program, for instance, can comply with a small portion of their legal obligations by purchasing qualifying offsets.⁵ Outside of the State’s regulatory regime, carbon offsets may also be purchased by individuals or businesses on a voluntary basis.⁶ Individuals may purchase offsets to advance personal sustainability goals. And businesses may purchase offsets to “demonstrate their commitment to reducing their carbon footprint” or to advertise to consumers that their products are “carbon neutral.”⁷

Although carbon offsets used for compliance with state emissions programs are closely regulated, most offsets sold on the voluntary market are not.⁸ Last year, lawmakers expressed concern that the voluntary offset industry had become a “wild west.”⁹ Recent studies suggested that some offsets on the market “did not represent

² Off. of Sen. Floor Analyses, 3d reading analysis of Ass. Bill No. 1305 (2023-2024 Reg. Sess.) Sept. 11, 2023, p. 3 (Senate Analysis).

³ Sen. Judic. Comm., analysis of Ass. Bill No. 1305 (2023-2024 Reg. Sess.) July 7, 2023, p. 5 (Judiciary Committee Analysis).

⁴ See Judiciary Committee Analysis, at p. 5.

⁵ The Cap-and-Trade program “establishes a declining limit on major sources of [greenhouse gas] emissions throughout California.” (Cal. Air Resources Board, Cap-and-Trade Program, About, <https://ww2.arb.ca.gov/our-work/programs/cap-and-trade-program/about> (as of July 22, 2024).) Regulated entities can use carbon offsets “to satisfy a small percentage of their overall compliance obligation”—currently, up to four percent. (Cal. Air Resources Board, Compliance Offset Program, About, <https://ww2.arb.ca.gov/our-work/programs/compliance-offset-program/about> (as of July 22, 2024).)

⁶ See Senate Analysis, at p. 4.

⁷ Senate Analysis, at p. 4.

⁸ See Senate Analysis, at p. 5; Bill Author Fact Sheet, at p. 1.

⁹ Off. of Ass. Floor Analyses, Conc. in Sen. Amends. of Ass. Bill No. 1305 (2023-2024 Reg. Sess.) Sept. 12, 2023, p. 2 (Assembly Analysis).

genuine carbon reductions.”¹⁰ Such “junk offsets” defraud purchasers when the promised carbon benefits are not delivered.¹¹ And businesses that rely on invalid offsets in their carbon accounting may make inaccurate claims to customers and investors—for example, as to whether their products are carbon neutral.¹²

To increase accountability and transparency in the offset market, the Legislature in 2023 enacted Assembly Bill 1305.¹³ That statute requires any business that markets or sells a “voluntary carbon offset” within the State to disclose specified information on its website about the underlying emissions-reduction project.¹⁴ Sellers must disclose the project’s location and timeline, the protocol used to estimate emissions benefits, and the annual quantity of emissions reduced or carbon removed, among other information.¹⁵ A business that “purchases or uses voluntary carbon offsets” must make analogous disclosures if it advertises “significant” emissions reductions, “carbon neutral[ity],” or similar environmental claims.¹⁶ Regulated entities must update disclosures annually or face civil penalties.¹⁷

The new disclosure rules apply to products that claim to reduce atmospheric greenhouse gas levels. Specifically, the statute defines a “voluntary carbon offset” as “any product sold or marketed in the state that claims to be a ‘greenhouse gas emissions offset,’ a ‘voluntary emissions reduction,’ [or] a ‘retail offset.’”¹⁸ It also includes “any like term . . . that connotes that the product” either “corresponds to a reduction in the amount of greenhouse gases present in the atmosphere” or “prevents the emission of greenhouse gases into the atmosphere that would have otherwise” occurred.¹⁹ Because the statute is focused on the voluntary consumer market, a product is not a “voluntary

¹⁰ Bill Author Fact Sheet, at p. 1; see Senate Analysis, at p. 5.

¹¹ Senate Analysis, at p. 5.

¹² Senate Analysis, at p. 5.

¹³ See Stats. 2023, ch. 365, § 1 (enacting Ass. Bill No. 1305), codified at Health & Safety Code, Div. 26, Part 10, §§ 44475-44475.3; Assembly Analysis, at p. 2.

¹⁴ Health & Safety Code, § 44475.

¹⁵ Health & Safety Code, § 44475, subds. (a)-(c).

¹⁶ Health & Safety Code, § 44475.1.

¹⁷ Health & Safety Code, § 44475.3.

¹⁸ Health & Safety Code, § 44475, subd. (d)(3)(A).

¹⁹ Health & Safety Code, § 44475, subd. (d)(3)(A).

carbon offset” if it “correspond[s] to legal or regulatory mandates” for reducing atmospheric greenhouse gases or preventing emissions.²⁰

This opinion request asks whether AB 1305’s definition of “voluntary carbon offset” encompasses a type of regulatory instrument known as a “renewable energy certificate” or “renewable energy credit” (REC, pronounced like the word “wreck”). A REC “is a tradeable, market-based instrument that represents the legal property rights to the ‘renewable-ness’—or all non-power attributes—of renewable electricity generation.”²¹ For each “unit of electricity” that is “generated and delivered by an eligible renewable energy resource,” such as a solar or wind facility, a REC is created as a “certificate of proof.”²² It represents the “renewable and environmental attributes associated with the [electricity] production.”²³ RECs are traded on regulated markets and may be sold with or without the associated unit of electricity.²⁴

RECs are used by energy suppliers and consumers to support claims that electricity was generated from renewable resources. For example, if a business purchases renewable electricity along with the associated RECs, then it can claim ownership and use of clean energy. But if the business instead buys the same electricity without the associated RECs, then it cannot claim to own or use zero-emissions energy because it would not own the “renewable and environmental attributes associated with the [electricity] production.”²⁵ Instead, the purchaser of the associated RECs would obtain the “exclusive right[] to characterize” the corresponding quantity of energy as “zero-emissions electricity.”²⁶

In California, energy suppliers use RECs to comply with their obligations under the Renewables Portfolio Standard program (RPS), administered by the California Public

²⁰ Health & Safety Code, § 44475, subd. (d)(3)(B).

²¹ U.S. Environmental Protection Agency, Renewable Energy Certificate Monetization, <https://www.epa.gov/greenpower/renewable-energy-certificate-monetization> (as of July 22, 2024).

²² Pub. Util. Code, § 399.12, subd. (h)(1).

²³ Pub. Util. Code, § 399.12, subd. (h)(2).

²⁴ See Pub. Util. Code, § 399.25, subd. (c); Cal. Energy Commission, PSD Frequently Asked Questions, <https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program/psd-frequently-asked-questions> (as of July 22, 2024).

²⁵ Pub. Util. Code, § 399.12, subd. (h)(2) (REC definition).

²⁶ U.S. Environmental Protection Agency, Offsets and RECs: What’s the Difference? (Feb. 2018), p. 4, https://www.epa.gov/sites/default/files/2018-03/documents/ggp_guide_recs_offsets.pdf (as of July 22, 2024) (EPA Offsets and RECs).

Utilities Commission and the California Energy Commission. The RPS program requires that an increasing percentage of electricity sold in the State is generated from renewable energy resources.²⁷ The program currently mandates, for instance, that 60 percent of retail electricity sales must be served by renewable energy by 2030.²⁸ Each compliance period, retail electricity suppliers must furnish RECs to regulators to demonstrate that the required percentage of electricity was derived from renewable resources.²⁹ Suppliers can acquire RECs either by directly generating renewable electricity or by buying RECs on regulated markets.

Relevant here, RECs are also sold for use outside the RPS program on a voluntary basis to support claims of clean energy generation and use. A business that wishes to advertise products manufactured using zero-emissions energy, for instance, might support that claim by buying RECs to match the nonrenewable energy it obtains from the utility grid.³⁰ “By purchasing RECs and electricity separately,” organizations can effectively “obtain green power” in areas where renewable energy is otherwise unavailable.³¹

ANALYSIS

The question presented here is whether RECs sold for non-regulatory use outside of the State’s RPS program are “voluntary carbon offsets” subject to AB 1305’s disclosure requirements. We conclude that they are not.

As discussed, AB 1305 defines a “voluntary carbon offset” as

any product sold or marketed in the state that *claims* to be a “greenhouse gas emissions offset,” a “voluntary emissions reduction,” a “retail offset,” or any like term, that connotes that the product represents or corresponds to a reduction in the amount of greenhouse gases present in the atmosphere or that prevents the

²⁷ See Pub. Util. Code, § 399.11 et seq.; Cal. Public Utilities Commission, Renewables Portfolio Standard (RPS) Program, <https://www.cpuc.ca.gov/rps> (as of July 22, 2024); Cal. Energy Commission, Renewables Portfolio Standard—RPS, <https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard> (as of July 22, 2024).

²⁸ See Cal. Public Utilities Commission, Renewables Portfolio Standard (RPS) Program, <https://www.cpuc.ca.gov/rps> (as of July 22, 2024).

²⁹ See Pub. Util. Code, § 399.21; Cal. Public Utilities Commission, RPS Compliance and Reporting, <https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/electric-power-procurement/rps/rps-compliance-rules-and-process/rps-compliance-and-reporting> (as of July 22, 2024).

³⁰ See EPA Offsets and RECs, at p. 5.

³¹ EPA Offsets and RECs, at p. 5.

emission of greenhouse gases into the atmosphere that would have otherwise been emitted.³²

In other words, a voluntary carbon offset must “claim”—directly or by implication—to either reduce greenhouse gases in the atmosphere or prevent future emissions that would otherwise have occurred.

The seller of a REC, however, makes no such claim. A REC does not directly promise to reduce greenhouse gases or prevent future emissions. It does not purport to be a “greenhouse gas emissions offset,” a “voluntary emissions reduction,” a “retail offset,” or any other product that expressly claims to alter atmospheric greenhouse gas levels.³³

Nor does a REC make such a claim indirectly.³⁴ First, a REC does not connote that it “represents or corresponds to a reduction in the amount of greenhouse gases present in the atmosphere.”³⁵ A REC instead conveys ownership of the non-power attributes of one unit of renewable electricity generation.³⁶ Although renewable electricity generation does not *increase* the amount of greenhouse gases in the atmosphere, the generation of renewable energy does not necessarily *reduce* existing atmospheric greenhouse gases either.

Second, a REC does not connote that it “prevents the emission of greenhouse gases into the atmosphere that would have otherwise” occurred.³⁷ To be sure, the generation of renewable electricity will sometimes avoid carbon dioxide emissions by displacing non-renewable energy sources. “Given the integrated nature of the power grid, adding electricity to the grid from one generator will result in the instantaneous reduction in generation from other generators,” assuming no change in energy demand.³⁸

³² Health & Safety Code, § 44475, subd. (d)(3)(A), italics added. Because a “voluntary carbon offset” does not include a product that “correspond[s] to legal or regulatory mandates” for preventing greenhouse gas emissions (*id.*, § 44475, subd. (d)(3)(B)), the definition expressly excludes a REC used for compliance with the State’s RPS program.

³³ Health & Safety Code, § 44475, subd. (d)(3)(A).

³⁴ See Health & Safety Code, § 44475, subd. (d)(3)(A) (a “voluntary carbon offset” includes a product that “connotes” that it reduces greenhouse gas levels or prevents future emissions); e.g., American Heritage Dict. (5th ed. 2016) p. 390 [“connote”] (“To suggest or imply in addition to literal meaning”).

³⁵ Health & Safety Code, § 44475, subd. (d)(3)(A).

³⁶ Pub. Util. Code, § 399.12, subd. (h)(2).

³⁷ Health & Safety Code, § 44475, subd. (d)(3)(A).

³⁸ *W. Virginia v. Env’t Prot. Agency* (2022) 597 U.S. 697, 713, internal quotation marks omitted.

So at times when the grid is being powered in part by fossil fuels, adding renewable electricity to the grid may trade off with fossil fuel generation—thereby avoiding the associated greenhouse gas emissions.

In other circumstances, however, adding renewable electricity to the grid will not displace fossil fuel generation. If the grid is already being powered *entirely* by renewable resources—as has regularly occurred in California within the past year—then generating additional renewable electricity at such a time will not reduce greenhouse gas emissions but will instead displace other clean energy sources.³⁹ And at times when energy demand threatens to exceed available supply—for example, during extreme heat events—adding renewable electricity to the grid will not displace any other generation source; it will simply increase the overall electricity supply to satisfy unmet consumer demand.⁴⁰

As these examples illustrate, the generation of renewable energy may or may not reduce fossil fuel generation, depending on the circumstances. And a REC itself makes no claim about what would have happened if the associated unit of clean electricity had not been generated—for example, about whether fossil fuel generation would otherwise have been greater.⁴¹ For these reasons, a REC does not connote that it “prevents the emission of greenhouse gases . . . that would have otherwise been emitted.”⁴² And because a REC makes no claim to be a “greenhouse gas emissions offset,” a “voluntary emissions reduction,” a “retail offset,” or any other product that promises to reduce atmospheric greenhouse gas levels or prevent future emissions, it falls outside the definition of a “voluntary carbon offset.”⁴³

Other aspects of AB 1305 reinforce our conclusion. The statute requires the seller of a voluntary carbon offset to disclose information about the underlying offset project,

³⁹ See Governor Gavin Newsom, California’s Grid Keeps Setting New Clean Energy Records (Apr. 19, 2024), <https://www.gov.ca.gov/2024/04/19/californias-grid-keeps-setting-new-clean-energy-records> (as of July 22, 2024); Fast Company, *California just went 9.25 hours using only renewable energy* (Apr. 23, 2024), <https://www.fastcompany.com/91110863/california-renewable-energy-grid> (as of July 22, 2024) (“Nearly every day for the last six weeks, California’s electric grid has run on solar, wind, and other clean energy sources for hours at a time”).

⁴⁰ See U.S. Environmental Protection Agency, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed.Reg. 64662, 64769 (Oct. 23, 2015) (“[A]dding electricity to the grid from one generator will result in the instantaneous reduction in generation from other generators” if “*demand is held constant*,” italics added).

⁴¹ See Pub. Util. Code, § 399.12, subd. (h)(1)-(2) (REC definition).

⁴² Health & Safety Code, § 44475, subd. (d)(3)(A).

⁴³ See Health & Safety Code, § 44475, subd. (d)(3)(A).

including the annual quantity of greenhouse gases reduced or avoided.⁴⁴ That quantity is measured by volume of gas, e.g., metric tons of carbon dioxide.⁴⁵ But a REC is measured differently: in units of electricity, megawatt-hours.⁴⁶ And a REC cannot be converted into a quantity of avoided emissions without additional assumptions, inputs, and calculations.⁴⁷ The fact that a REC is not measured in the units used to quantify reductions in greenhouse gas levels is further evidence that a REC does not make the type of emissions-reduction “claim” required for a “voluntary carbon offset.”⁴⁸

Our understanding of the statutory text aligns with AB 1305’s purpose. As described above, the Legislature’s concern was that consumers are being “defrauded” by unregulated products that promise to reduce greenhouse gas levels yet fail to do so.⁴⁹ Such promises can be difficult to verify, as the underlying carbon accounting can be “complicated” and “inscrutable.”⁵⁰ The Legislature was particularly concerned about offsets promising to prevent future emissions, which depend on difficult-to-verify claims about what would have happened without the offset’s purchase.⁵¹

To increase transparency, AB 1305 requires an offset seller to disclose information about the underlying offset project—thereby enabling “independent analyses” of the product’s greenhouse gas-reduction claims.⁵² But where a product, like a REC, does not claim to reduce greenhouse gases, AB 1305’s concerns are not implicated. There is no risk that a REC purchaser would be misled by complex carbon accounting or uncertain counter-factual scenarios because a REC makes no such claims.⁵³ And the only claim

⁴⁴ Health & Safety Code, § 44475, subd. (a)(10).

⁴⁵ See, e.g., Cal. Code Regs., tit. 17, § 95980 (measuring offsets in metric tons of carbon dioxide for Cap-and-Trade program).

⁴⁶ Pub. Util. Code, § 399.12, subd. (h)(1).

⁴⁷ See *ante*, fns. 37-40 (the quantity of greenhouse gas emissions avoided by renewable electricity generation, if any, depends on various external factors such as consumer energy demand and alternative power grid suppliers).

⁴⁸ Health & Safety Code, § 44475, subd. (d)(3)(A).

⁴⁹ Senate Analysis, at p. 5; see Bill Author Fact Sheet, at p. 1.

⁵⁰ Senate Analysis, at p. 4.

⁵¹ See Senate Analysis, at p. 4 (where an offset promises to protect a forest, for example, it may be difficult to determine whether the forest would otherwise have been destroyed).

⁵² Judiciary Committee Analysis, at p. 8; see Bill Author Fact Sheet, at p. 1.

⁵³ See Senate Analysis, at p. 4.

that a REC does make—to convey the non-power attributes of a unit of clean electricity—is already carefully regulated by other state laws.⁵⁴

Finally, our analysis is consistent with the view of the United States Environmental Protection Agency. The EPA has explained that offsets and RECs “are fundamentally different instruments” that are “not interchangeable.”⁵⁵ The two instruments serve different purposes: offsets “represent emissions reductions,” whereas RECs “convey environmental attributes and renewable electricity use claims.”⁵⁶ And they are measured in different units: an offset is typically measured in “one metric ton of CO₂-equivalent emissions,” while a REC is measured in “1 [megawatt-hour] of renewable electricity.”⁵⁷ Although the EPA has not considered AB 1305’s definition of a “voluntary carbon offset,” its explanation of why offsets and RECs are different “tools in [the] sustainability tool box” is consistent with our analysis.⁵⁸ For these reasons, we conclude that RECs used outside of the State’s regulatory programs are not “voluntary carbon offsets” under AB 1305.

⁵⁴ See, e.g., Pub. Util. Code, § 399.25, subd. (c) (requiring the California Energy Commission to establish a system for tracking RECs that “verifies the [associated] generation of electricity” and “protects against multiple counting”); compare, e.g., Assembly Analysis, at p. 2 (“[V]oluntary carbon offset credits sold to consumers or businesses to voluntarily offset their emissions are completely unregulated”).

⁵⁵ EPA Offsets and RECs, at pp. 1, 5.

⁵⁶ EPA Offsets and RECs, at p. 5.

⁵⁷ EPA Offsets and RECs, at p. 5.

⁵⁸ EPA Offsets and RECs, at p. 5; see, e.g., *Wildlife Alive v. Chickering* (1976) 18 Cal.3d 190, 201 (treating “administrative interpretation” of federal environmental law as “persuasive authority” in interpreting analogous state law).