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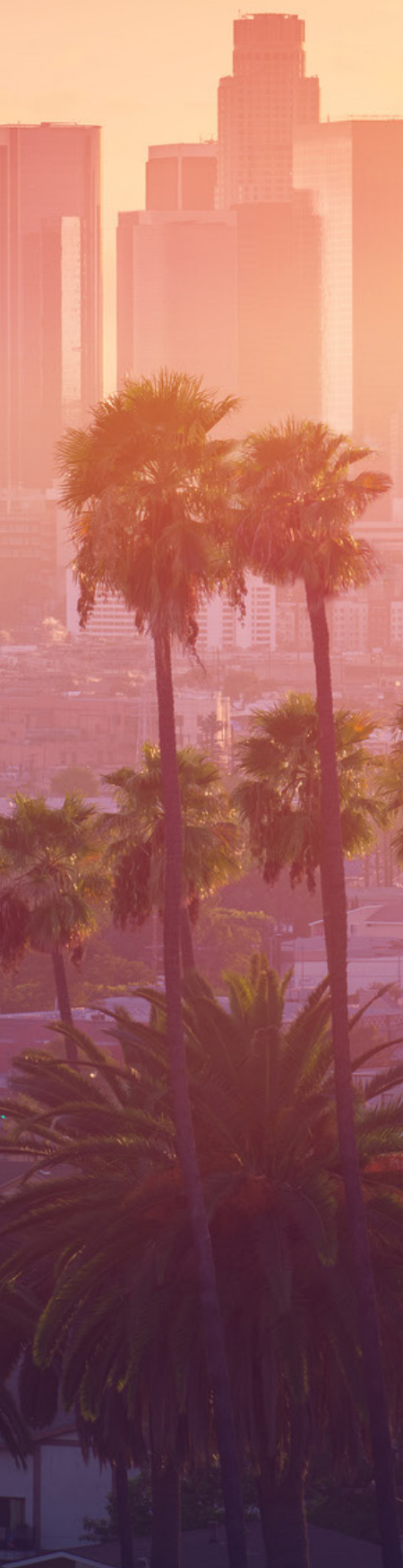

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Wielding the Power of ISRs: Using Indirect Source Rules to Fight Air Pollution from Mega Facilities

By Brennon Mendez and Cara Horowitz[1]

I. Introduction

Air pollution remains a serious threat to communities in much of the United States. Across the country, more than 35 percent of the population lives in air districts that fail to meet one or more of the minimum ambient air quality standards set under the federal Clean Air Act to protect public health. Additional communities live next to pollution "hot spots" that may be masked by an overall air basin's compliance with ambient standards. Many air regulators face complex challenges in meeting federal and local air quality goals. In part, this is due to a mismatch between local air basin regulatory authority—which is typically focused on the control of stationary source pollution and largely excludes control of mobile sources, like vehicles—and the largest sources of local air pollution, which are often mobile sources.

This brief discusses a set of air regulatory tools that can help overcome this mismatch and empower states and local air districts to do more to reduce harms caused by air pollution to communities. Air regulators possess significant, often untapped, legal authority to regulate stationary sources in a way that addresses mobile source pollution, too. This is because stationary sources cause both direct emissions from their sites as well as "indirect source emissions," such as the emissions from cars and trucks moving to and from sites like warehouses, ports, and refineries. While nearly all stationary source air pollution rules to date have focused on reducing direct emissions, indirect source emissions can be regulated by states and local air districts through the adoption and enforcement of so-called indirect source rules (ISRs).

ISRs seek to reduce pollution that is induced by stationary sources but not directly emitted from those sources, such as pollution from associated vehicle traffic or construction equipment. ISRs are increasingly attracting the attention of community groups, advocates, and air pollution regulators as an important regulatory tool, and they are increasingly being used by air districts. In recent years, two of California's 35 local air districts have adopted ISRs to tackle hard-to-abate emissions—the San Joaquin Valley Air Pollution Control District (SJVAPCD) and the South Coast Air

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Quality Management District (SCAQMD).[2] This brief seeks to explore the potential for expanded use of ISRs inside and outside of California.

First, this brief provides key background information on how ISRs have been drafted, passed, and implemented by air districts. Second, it assesses the legal and practical strengths of ISRs as a regulatory tool, as well as the barriers to adoption of ISRs by local air districts and states. This section also explores the legal foundation of ISRs under applicable federal and state law. Third, this brief proposes recommendations to advance the adoption of ISRs to better regulate indirect source emissions caused by stationary sources.

In short, we conclude that ISRs are legally sound tools that air districts could adopt widely and swiftly. ISRs have the potential to empower states and local air districts to better comply with the federal Clean Air Act and related state statutes, meet ambitious emission reduction targets, and pursue environmental justice by foregrounding the needs of directly-affected communities living near stationary sources of air pollution that cause significant indirect emissions. With federal and California emission standards for cars, trucks, and other mobile sources under current threat of rollback, these stationary source tools may become even more important.

II. Indirect Source Rule Basics and Examples from California

ISRs have the potential to empower states and local air districts to better comply with the federal Clean Air Act and related state statutes, meet ambitious emission reduction targets, and pursue environmental justice.

CALIFORNIA'S AIR POLLUTION CONTROL REGIME: A PRIMER

Air pollution in California is regulated pursuant to two statutory schemes created by the federal Clean Air Act, 42 U.S.C. § 7401 et seq., and the California Clean Air Act, Cal. Health & Safety Code § 39000 et seq. Under the federal Clean Air Act, "the Environmental Protection Agency (EPA) is authorized to issue national air quality standards setting the maximum allowable concentration of a given pollutant," and "states are required to attain air quality of specified standards and to do so within a specified period of time" via state implementation plans (SIPs) "proposing methods for maintaining air quality."[3] Local air districts "prepare SIP elements and submit them to CARB for review and approval," then "CARB forwards SIP revisions to [EPA] for approval and publication in the Federal Register."[4] Once approved by the EPA, California's SIP "ha[s] the force and effect of federal law."[5] The federal Clean Air Act requires that California's SIP demonstrate that CARB is implementing all "reasonably available control measures" that could lead to the attainment of the NAAQS, including the use of "reasonably available control technology (RACT)."[6] Per longstanding Supreme Court precedent and EPA regulations, the federal Clean Air Act grants CARB "considerable latitude" and "discretion" over how exactly the NAAQS are to be achieved.[7]

2 Cal. Air Res. Bd., *California Map for Local Air District Websites*, https://ww2.arb.ca.gov/california-map-local-air-district-websites.

3 *Cal. Bldg. Indus. Assn. v. San Joaquin Valley Air Pollution Control Dist.*, 178 Cal. App. 4th 120, 125 (2009) (citing *Train v. Nat. Res. Def. Council*, 421 U.S. 60, 64–65 (1975) and *Safe Air For Everyone v. EPA*, 475 F.3d 1096, 1099–1100 (9th Cir. 2007)).

4 Cal. Air Res. Bd., *California State Implementation Plans*, https://ww2.arb.ca.gov/our-work/programs/california-state-implementation-plans/about.

5 *Cal. Bldg. Indus. Assn.*, 178 Cal. App. 4th at 125 (citing *Safe Air For Everyone*, 475 F.3d at 1099).

6 42 U.S.C. § 7401.

7 *Train*, 421 U.S. at 86–87 ("We also believe that Congress, consistent with its declaration that '(e)ach State shall have the primary responsibility for assuring air quality' within its boundaries, § 107(a), left to the States considerable latitude in determining specifically how the standards would be met. This discretion includes the continuing authority to revise choices about the mix of emission limitations."); *see Union Elec. Co. v. EPA*, 427 U.S. 246, 268 (1976) ("Congress plainly left with the States, so long as the national standards were met, the power to determine which sources would be burdened by regulation and to what extent."); *see also* 40 C.F.R. §§ 51.100(n), 51.101(e) (2024).

Indirect sources rules are stationary source regulations that are designed to control air pollution from mobile source activity that is generated by or attracted to a stationary source, and over which a stationary source has some degree of control.

Under the California Clean Air Act, the California Air Resources Board (CARB) is authorized to set the California ambient air quality standards (CAAQS), which may be stricter or broader in scope than the EPA's national ambient air quality standards (NAAQS).[8] Local air districts have legal authority and "primary responsibility for control of air pollution from all sources other than vehicular sources," while CARB retains primary responsibility for the control of vehicular sources of air pollution, and local air districts "may establish stricter standards than those set by law or by the state board for nonvehicular sources."[9] Indirect source rules (ISRs) are just one of many regulatory approaches that local air districts may adopt to regulate emissions caused by stationary sources of air pollution (e.g., warehouses, ports, rail yards), including the emissions that these stationary sources cause by attracting vehicular sources of air pollution (e.g., cars, trucks) to the surrounding area—referred to as "indirect source emissions." The delineation of legal authority, with CARB regulating vehicular sources of air pollution and local air districts regulating non-vehicular sources, is not absolute. For example, although local air districts have "primary responsibility" over nonvehicular sources, CARB "has the authority to adopt measures specifically to reduce emissions of toxic air contaminants from non-vehicular and vehicular (mobile) sources" alike through Airborne Toxic Control Measures (ATCM), which "can include process requirements, emissions limits, or technology requirements" and for which local "air districts have statutory enforcement requirements once CARB adopts a non-vehicular ATCM."[10]

A. What are indirect source rules (ISRs)?

Indirect sources rules are stationary source regulations that are designed to control air pollution from mobile source activity that is generated by or attracted to a stationary source, and over which a stationary source has some degree of control. Such air pollution can be thought of as indirect stationary source emissions.[11] Common stationary sources that cause indirect source emissions include warehouses, ports, rail yards, parking structures, office complexes, shopping malls, sports and entertainment venues, and large residential buildings. Courts have held that local air districts may regulate to control both the *direct* emissions of stationary sources (e.g., emissions from warehouses' gas-powered heating systems) and their *indirect* emissions from mobile sources that they generate or attract (e.g., vehicular emissions from trucks transporting goods to and from warehouses and cargo-handling equipment moving goods at ports).[12]

8 Cal. Air Res. Bd., *California Ambient Air Quality Standards*, https://ww2.arb.ca.gov/resources/california-ambient-air-quality-standards; *see* Cal. Health & Safety Code § 39027 (defining "emissions standards" as "specified limitations on the discharge of air contaminants into the atmosphere").

9 Cal. Health & Safety Code § 39002; *see also id.* §§ 40001(a) ("Subject to the powers and duties of the state board, the districts shall adopt and enforce rules and regulations to achieve and maintain the state and federal ambient air quality standards in all areas affected by emission sources under their jurisdiction, and shall enforce all applicable provisions of state and federal law."), 41508 ("Any local or regional authority may establish additional, stricter standards than those set forth by law or by the state board for non-vehicular sources.").

10 Cal. Air Res. Bd., *Overview of CARB and Air District Strategies*, https://ww2.arb.ca.gov/capp/cst/rdi/overview-of-carb-and-air-district-strategies.

11 For example, California's definition of an "indirect source" is "[a]ny facility, building, structure, or installation, or combination thereof, which generates or attracts mobile source activity that results in emissions of any pollutant (or precursor) for which there is a state ambient air quality standard." Cal. Air Res. Bd., *Community Air Protection Program Blueprint 2.0* (Oct. 2023), at 129, https://ww2.arb.ca.gov/sites/default/files/2024-04/BP2.0_FULL_FINAL_ENG_2024_04_09.pdf.

12 *See, e.g., Nat'l Ass'n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.*, 627 F.3d 730 (9th Cir. 2010); *Cal. Bldg. Indus. Assn. v. San Joaquin Valley Air Pollution Control Dist.*, 178 Cal. App. 4th 120 (2009).

A report by the San Diego County Air Pollution Control District catalogs some of the ways that indirect source emissions can be caused by stationary sources:[13]

- "Sources such as warehouses, distribution centers and ports are primary destinations for trucks engaged in delivering, loading and/or unloading cargo. These freight hubs indirectly cause air pollution due to the emissions from diesel-fueled trucks, trains, ships, off-road equipment, and other mobile sources they attract, including trucks with diesel-fueled refrigeration systems used for transporting perishable goods."
- "Freight facilities commonly use diesel-fueled cargo handling equipment (such as forklifts and yard tractors) to maneuver cargo onsite and transfer it onto or off the trucks, trains, and ships."
- "Employee passenger vehicles [] contribute to the facility's indirect source emissions."
- "For ports, ocean-going vessels are the largest contributor of indirect source emissions."
- "Heavy-duty diesel trucks are the largest contributor to the indirect source emissions associated with warehouses and distribution centers."

The hallmark of any ISR is that the entity regulated by the rule, to which compliance obligations attach, is the stationary source.

Indirect source rules can control such emissions using a range of approaches. For example, an ISR might require that a new stationary source reduce NOx emissions by incentivizing carpooling by its employees or by installing EV charging infrastructure to facilitate the use of zero-emission vehicles. Alternatively, an ISR can offer regulated entities the option of simply paying a mitigation fee to fund government-run programs that reduce the presence of or harm caused by air pollution (i.e., by installing HEPA filters in government buildings or subsidizing the installation of solar panels in public schools). The hallmark of any ISR is that the entity regulated by the rule, to which compliance obligations attach, is the stationary source. The ultimate goal and effect of ISRs is to reduce mobile source air pollution emissions induced by the stationary source, using tools under the control of the stationary source.

Though relatively novel, ISRs are well-founded under both federal and state law. Federally, the Clean Air Act expressly permits states to adopt ISRs under § 110(a)(5) of the Act, which "authorizes the states to adopt 'any indirect source review program'" and which defines an indirect source as "'a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution.'"[14] In California, state law explicitly recognizes local air districts' authority to regulate indirect source emissions in multiple provisions of the Health and Safety Code.[15] For example, the Code establishes that a local air district can "adopt and implement regulations to . . . reduce or mitigate emissions from indirect and areawide sources of air pollution."[16]

These strong statutory foundations are supported by general notions of local and state police power. Local air districts' police power provides legal authority for the adoption of ISRs as regulations that benefit the health and safety of district residents. In California, for example, courts have explicitly held that a local air district regulation "represents a lawful and proper exercise of the police power" if it was enacted "'to protect the order, safety, health, morals and general welfare of society'" and "is not arbitrary, unreasonable or discriminatory," in a case upholding a local air district rule limiting "noxious gases discharged by vehicles, industrial establishments and incinerators."[17]

13 Cal. Health & Safety Code § 40100.6.5(a)(6); *see* San Diego County Air Pollution Control Dist., *Options and Considerations for Reducing Indirect Source Emissions at Warehouses, Distribution Centers, and Ports* (May 2023), https://www.sdapcd.org/content/dam/sdapcd/documents/rules/rule-workshops/060823/ISR-Framework-English.pdf.

14 *Nat'l Ass'n of Home Builders*, 627 F.3d at 733–34 (quoting 42 U.S.C. § 7410(a)(5)(A)(i), (C), and (D)).

15 *See* Cal. Health & Safety Code §§ 39002, 40000, 40001, 40702, 40716, 40920, 40100.6.5.

16 *Id.* § 40716(a)(1).

17 *Lees v. Bay Area Air Pollution Control Dist.*, 238 Cal. App. 2d 850, 857 (1965) (quoting *In re Rameriz*, 193 Cal. 633, 649–650 (1924)) (citing *Northwestern Laundry v. Des Moines*, 239 U.S. 486 (1916)).

The California Health & Safety Code § 40001(a) recognizes the delegated police power wielded by local air districts, which have the sweeping legal authority to "adopt and enforce rules and regulations to achieve and maintain the state and federal ambient air quality standards in all areas affected by emission sources under their jurisdiction," whether those emissions are direct or indirect. In short, the legal authority of local air districts to adopt ISRs is established by the state Legislature's delegation of its police power to local air districts, which are tasked with protecting public health and safety. This legal authority is expressly recognized by both the federal Clean Air Act and related state statutes, and has been upheld every time it has been challenged in court.

At bottom, ISRs are also consistent with longstanding legal principles that govern "but-for" causation—an omnipresent legal construct in many substantive areas of law including tort and criminal law. ISRs hold stationary sources accountable for the emissions indirectly caused by those stationary sources' attraction of mobile sources like cars and trucks, because those emissions would not occur "but for" the presence of the stationary source. ISRs simply apply the legal standard for "actual causation"—also known as "cause-in-fact"—to stationary sources of indirect source emissions. ISRs are just one of many regulatory tools that local air districts may use to regulate stationary sources and the air pollution that they cause, whether that pollution is emitted from the stationary sources directly or via the vehicles that they attract.

B. What ISRs have been adopted by local air districts?

Two local air districts in California have pioneered the use of ISRs to control emissions from a range of types of stationary sources, including large developments, warehouses, and freight rail yards. These rules, adopted by the San Joaquin Valley Air Pollution Control District ("San Joaquin Valley") and the South Coast Air Quality Management District ("South Coast"), are described below, along with a fourth ISR now under development that would control emissions from marine ports.[18]

18 These California air district ISRs go beyond the scope of regulations in Oregon and Washington D.C. that impose a permitting requirement on facilities that cause indirect source pollution. Specifically, Oregon's permit rule requires certain parking facilities that cause indirect source emissions to obtain a permit from the state and—only if the state determines that a facility will cause a violation of Oregon's federal Clean Air Act obligations—establish its own "Indirect Source Emission Control Program" involving various air pollution mitigation measures. *See* Or. Admin. R. § 340-254-0040, https://secure.sos.state.or.us/oard/displayDivisionRules.action?selectedDivision=1561. Likewise, D.C.'s permit rule requires a permit without creating a specific compliance program or imposing concrete regulatory burdens on polluting facilities. *See* D.C. Mun. Regs. tit. 20, § 207 (2000), http://dcrules.elaws.us/dcmr/20-207. Because California's air district ISRs are more substantive and pioneered a new direction for use of ISR authority, we focus on them here.

San Joaquin Valley's ISR requires building developers to reduce by certain percentages the NOx and PM10 emissions from mobile sources associated with the development, with provisions aimed at both the construction and operation phases.

San Joaquin Valley's ISR ("Large Development Projects ISR")

In 2005, the San Joaquin Valley Air Pollution Control District became "the first air agency in the nation to control emissions from indirect sources," adopting the Large Development Projects ISR.[19] This ISR applies to any large buildings—whether industrial, commercial, or residential—that are newly constructed as well as any existing large buildings that are expanded or converted to a new use (e.g., by adding more units to a residential building or converting purely-industrial buildings into mixed-use housing).[20] The ISR requires building developers to reduce by certain percentages the NOx and PM10 emissions from mobile sources associated with the development, with provisions aimed at both the construction and operation phases of the development.[21] The ISR gives developers choices in how to achieve those reductions; options to control emissions include, for example, using "the cleanest available off-road construction equipment, including the latest Tier diesel or electric equipment," and installing and using EV "charger(s) at the project site to promote the use of low or zero-emission vehicles."[22] The ISR has been remarkably successful and has been credited with avoiding tens of thousands of tons of NOx and PM10 emissions since its adoption.[23]

Here's how the rule works in more detail.[24] The ISR applies to large development projects that are subject to an approval by a public agency and either "result in the construction of a new building, facility, or structure" or "the reconstruction of a building, facility, or structure for the purpose of increasing capacity or activity."[25] Notably, projects predating the adoption of the ISR remain unregulated unless they undergo a reconstruction that increases their capacity or activity, like adding apartment units or rezoning a building from industrial to residential use. The ISR requires large development projects to reduce their total NOx and PM10 emissions—"including area source and mobile emissions" as well as direct emissions—by 20% and 45%, respectively, during the construction stage and by 33.3% and 50% during the operation stage "when compared to unmitigated project baseline emissions."[26] San Joaquin Valley uses the California Emissions Estimator Model (CalEEMod) to calculate the projected emissions levels of large development projects subject to the ISR, evaluating each new or reconstruction project in the district—a practice that might be less feasible if attempted by mostly-urban districts with many more large development projects.[27]

19 SJVAPCD Rule 9510; SDCAPCD Report, *supra* note 13, at 7; *see generally* San Joaquin Valley Air Pollution Control Dist., *About the District*, https://ww2.valleyair.org/about/ (explaining that SJVAPCD includes all of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare counties and part of Kern county).

20 SJVAPCD Rule 9510, § 3.13 (defining "large" by establishing square footage thresholds that differ based on zoning type, such as residential projects with 50 or more units or heavy industrial projects of 100,000 square feet or more).

21 *Id.* § 6.0.

22 San Joaquin Valley Air Pollution Control Dist., *Emission Reduction Clean Air Measures* (Aug. 18, 2022), at 1, https://ww2.valleyair.org/media/ob0pweru/clean-air-measures.pdf.

23 San Joaquin Valley Air Pollution Control Dist., *Indirect Source Review Program 2024 Annual Report* (Dec. 19, 2024), at 4, https://ww2.valleyair.org/media/shmpiyrd/final-isr-annual-report-2024.pdf.

24 More specifically, SJVAPCD's Large Development Projects ISR was established by two rules: Rule 9510 titled "Indirect Source Review," which was adopted in 2005 and amended most recently in 2018, and Rule 3180 titled "Administrative Fees for ISR," adopted in 2005 and amended most recently in 2019. *See* San Joaquin Valley Air Pollution Control Dist., *Indirect Source Review Rule Overview*, https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview; San Joaquin Valley Air Pollution Control Dist., Rule 9510: Indirect Source Review (ISR) (adopted Dec. 15, 2005; most recently amended Dec. 21, 2017; in effect Mar. 21, 2018), https://ww2.valleyair.org/media/cjlnn0u1/r9510-a.pdf (hereinafter "SJVAPCD Rule 9510"); San Joaquin Valley Air Pollution Control Dist., Rule 3180: Administrative Fees for ISR (adopted Dec. 15, 2005; most recently amended Apr. 19, 2018; in effect July 1, 2019), https://ww2.valleyair.org/media/jool5mh1/r3180-a2.pdf (hereinafter "SJVAPCD Rule 3180").

25 SJVAPCD Rule 9510, § 3.13.

26 *Id.* §§ 3.28, 6.0.

27 San Joaquin Valley Air Pollution Control Dist., *Frequently Asked Questions Rule 9510 Indirect Source Review (ISR)* (Apr. 30, 2020), https://ww2.valleyair.org/media/5v3fdh1d/isr_faq_4-30-20.pdf; *see* Cal. Air Pollution Control Officers Assoc., *California Emissions Estimator Model*, https://www.caleemod.com/.

WHAT IS THE CALIFORNIA EMISSIONS ESTIMATOR MODEL?

The California Emissions Estimator Model (CalEEMod) is a computer model that calculates emissions of criteria pollutants and greenhouse gases from a variety of land uses, including residential, commercial, retail, and industrial projects, as well as calculating the benefits of implementing mitigation measures that reduce emissions.[28] CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA), a nonprofit association comprised of air pollution control officers from all 35 local air districts in California.[29] The model can quantify emissions and the impact of emission mitigation measures during both the construction and operation phases of new development and redevelopment projects in California, doing so by integrating data from statewide databases like CalEnviroScreen, Cal-Adapt, and the Healthy Places Index (HPI) "to identify potential climate risks and environmental burdens within the project vicinity" and analyze potential "measures to reduce emissions."[30]

CalEEMod allows users to enter information about a development project into an online tool, through "a series of screens within modules and submodules, each designed with an individual purpose to define features of a project (e.g., construction schedule and equipment, operational activity)"; then, based on that data and the type of land use elected, the model will estimate emissions and the impact of potential emission reduction measures.[31] The model's website states it "provides a uniform and integrated platform for government agencies, land use planners, and professionals to collectively analyze air quality emissions, climate risks, and health and environmental burdens of new projects and plans," with the ultimate goal that, "when assessed comprehensively and holistically, projects and plans can be designed and built to support healthier neighborhoods and more equitable and resilient communities."[32]

Compliance can be achieved by incorporating "on-site District approved air friendly project design elements," including locating the project near existing or planned bus stops or using a fleet of cleaner-burning or more fuel-efficient construction equipment.

Compliance can be achieved by incorporating "on-site District approved air friendly project design elements," which include things like locating the project near existing or planned bus stops or using a "Construction Clean Fleet," defined as a fleet of cleaner-burning or more fuel-efficient construction equipment that reduces construction emissions by significant amounts as compared with statewide averages.[33] Other San Joaquin Valley-approved compliance instruments include the construction of bicycle-enhancing infrastructure like paths, parking, and storage; the provision of shuttle services to and from transit stations, public transit subsidies, and preferential parking for carpool and vanpool vehicles; limiting the parking supply; the establishment of employee ridesharing and telecommuting programs; and the installation of solar panels, EV charging stations, and alternative fuels infrastructure (i.e., natural gas and hydrogen fuel cell stations).[34] Alternatively, compliance can be achieved by "paying an off-site fee that will be used to fund off-site emission reduction projects," like the replacement of old heavy duty off-road vehicles, wood burning stoves, and old school buses with newer, cleaner versions of those sources of air pollution.[35] The current off-site fee rate is $9,350 per ton for NOx and about $9,000 per ton for PM10.[36]

28 *See* San Joaquin Valley Air Pollution Control Dist., *Emissions Assessment Models and Calculators*, https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/emissions-assessment-models-and-calculators/.
29 *See* CAPCOA, *California Emissions Estimator Model*, *supra* note 27; Cal. Air Pollution Control Officers Assoc., Home, https://capcoa.org/.
30 CAPCOA, *California Emissions Estimator Model*, *supra* note 27.
31 Cal. Air Pollution Control Officers Assoc., *California Emissions Estimator Model FAQ*, https://www.caleemod.com/faq.
32 *Id.*
33 SJVAPCD, *Frequently Asked Questions Rule 9510 Indirect Source Review (ISR)*, *supra* note 27.
34 SJVAPCD, *Emission Reduction Clean Air Measures*, *supra* note 22, at 1.
35 SJVAPCD, *Frequently Asked Questions Rule 9510 Indirect Source Review (ISR)*, *supra* note 27.
36 *See id.*; *see also* SJVAPCD Rule 9510, § 7.2.

The rule was enacted in order to help San Joaquin Valley meet air quality targets that have been notoriously difficult for the district to satisfy. The San Joaquin Valley district has been out of attainment for ozone and particulate matter for decades, failing to meet both state and federal ambient air quality standards for those air pollutants. Importantly, "mobile source emissions make up over 85% of the Valley's NOx emissions, the primary driver in the formation of particulate matter (PM) and ozone pollution."[37] The district has acknowledged that it "has no regulatory authority to control tailpipe emissions from motor vehicles"—which belongs exclusively to CARB and U.S. EPA—so instead it turned to its authority to regulate stationary sources of indirect source emissions with the aim of "reduc[ing] vehicle miles traveled."[38] San Joaquin Valley also cites as a source of authority for its ISR a provision of California law providing that San Joaquin Valley's board "shall adopt, by regulation, a schedule of fees to be assessed on areawide or *indirect* sources of emissions that are regulated, but for which permits are not issued, by the district to recover the costs of district programs related to these sources."[39]

With these goals in mind, the district has stated that its ISR is intended "to encourage developers to incorporate clean air measures and reduce emissions of NOx and PM10 from new development projects" because "new development contributes to the air-pollution problem in the Valley by increasing the number of vehicles and vehicle miles traveled."[40] San Joaquin Valley's ISR has become an important part of the district's submission to CARB for inclusion in California's State Implementation Plan (SIP).[41]

By all accounts, the rule has been quite successful at achieving air pollution reductions cost-effectively. The district calculates that the rule has avoided over 22,000 tons of NOx and PM10 emissions since its adoption.[42] San Joaquin Valley touts that it "has achieved more than 20,736 tons of reductions in NOx and PM10 emissions through the investment of over $180 million dollars" in San Joaquin Valley's emission reduction grants and incentives programs, which are funded by the fees imposed by the ISR and related donations from regulated developers who decide to go above and beyond their compliance obligations and enter into voluntary agreements to donate to San Joaquin Valley.[43] In the most recent annual reporting period, San Joaquin Valley "achieved emission reductions via grants and incentives clean-air projects totaling 1,615 tons NOx and 227 tons PM10, for a combined total of 1,842 tons, at a cost-effectiveness of $9,857 per ton of emissions reduced."[44]

San Joaquin Valley's ISR has withstood legal challenge. In a published decision, the Ninth Circuit Court of Appeals upheld the rule as a valid exercise of the district's authority to regulate air pollution under the federal and state Clean Air Acts.[45] The court recognized the ISR as consistent with local air district authority to regulate stationary sources of air pollution and rejected claims that the rule, instead, invalidly targeted mobile sources:

37 SJVAPCD, *Frequently Asked Questions Rule 9510 Indirect Source Review (ISR)*, *supra* note 27.
38 *Id.*
39 SJVAPCD, *Indirect Source Review Rule Overview*, *supra* note 24 (citing Cal. Health & Safety Code § 40604(a)).
40 *Id.* (also noting that "although newer, cleaner technology is reducing the per-vehicle pollution, the emissions increase from new development putting more vehicles on Valley roads partially offsets the emission reductions gained from technology advances"); *see* U.S. EPA, *Basic Information about NO2*, https://www.epa.gov/no2-pollution/basic-information-about-no2 ("NO2 along with other NOx reacts with other chemicals in the air to form both particulate matter and ozone.")
41 SJVAPCD, *Indirect Source Review Rule Overview*, *supra* note 24; *see* U.S. EPA, *California Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants*, https://www3.epa.gov/airquality/greenbook/anayo_ca.html (showing that San Joaquin County is still in nonattainment for particulate matter that is 2.5 micrometers or less in diameter (PM2.5) but is no longer in nonattainment for the overlapping but broader category of PM10 that the SJVAPCD ISR regulates); San Joaquin Valley Air Pollution Control Dist., *Ambient Air Quality Standards & Attainment Status*, https://ww2.valleyair.org/air-quality-information/ambient-air-quality-standards-valley-attainmnet-status/.
42 SJVAPCD, *Indirect Source Review Program 2024 Annual Report*, *supra* note 23, at 4.
43 *Id.* at 4–5.
44 *Id.* at 5.
45 *Nat'l Ass'n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.*, 627 F.3d 730, 737 (9th Cir. 2010).

The Rule, after all, measures the emissions it regulates by reference to a particular development site. The "baseline" amount of emissions, and the required reduction in emissions from that baseline, are both calculated in terms of the development as a whole. The Rule and the emissions reductions it requires are site-based rather than engine- or vehicle-based. *See* 42 U.S.C. § 7410(a)(5)(C) (requiring that an indirect source review program be a "facility-by-facility" review). It regulates an indirect source as a whole.[46]

The Ninth Circuit held that San Joaquin Valley's ISR and the emissions reductions it requires are site-based rather than engine- or vehicle-based.

The Ninth Circuit explained that the dispositive factor establishing that San Joaquin Valley's ISR "is a proper indirect source review program" is the fact that the ISR "does not target vehicles or engines" but rather "targets emissions, and requires emissions reductions, from a development site as a whole."[47]

South Coast's Rules 2305 and 316 ("Warehouse ISR")

In 2021, South Coast adopted an ISR that aims to reduce smog-forming emissions by ten to fifteen percent from warehouse-related sources, such as freight trucks.[48] The Warehouse ISR covers about 3,300 of the largest warehouses in the district. It was adopted via the promulgation of two rules, one of which targets particulate matter and NOx caused by freight operations and the second of which sets a fee to provide funding for the implementation and administration of compliance activities.[49] The purpose of this set of rules is to help the district reduce emissions from the goods movement sector, which is growing rapidly in the South Coast Air Basin such that the total inventory of warehousing space increased by 41% over the last decade.[50]

The Warehouse ISR requires operators of warehouses greater than or equal to 100,000 square feet in size to report information about their building, their tenants, and their operations and associated truck activity. The ISR imposes compliance obligations on a subset of those warehouse operators—those "who operate at least 50,000 square feet of the warehouse for warehousing activities."[51] Those warehouse operators undertake compliance obligations in proportion to the number of truck trips made to and from their facility each year, with trips by larger Class 8 trucks (e.g., semi-trucks weighing >33,000 pounds) being weighted as 2.5 trips due to their higher levels of emissions.[52] The more truck trips are taken to a regulated warehouse, the more compliance points the warehouse must accrue. [53]

46 *Ibid.*
47 *Id.* at 738–39.
48 Press Release, South Coast Air Quality Mgmt. Dist., South Coast AQMD Governing Board Adopts Warehouse Indirect Source Rule (May 7, 2021), https://www.aqmd.gov/docs/default-source/news-archive/2021/board-adopts-waisr-may7-2021.pdf.
49 Rule 2305, titled the "Warehouse Indirect Source Rule—Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program," target indirect source emissions of particulate matter and NOx caused by freight operations; and Rule 316, titled "Fees for Rule 2305," sets a fee schedule according to which the regulated warehouses provide funding for the implementation and administration of the compliance activities required by Rule 2305. *See* S. Coast Air Quality Mgmt. Dist., *WAIRE Program*, https://www.aqmd.gov/home/rules-compliance/compliance/waire-program; S. Coast Air Quality Mgmt. Dist., Rule 2305: Warehouse Indirect Source Rule—Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program (adopted May 7, 2021), https://www.aqmd.gov/docs/default-source/rule-book/reg-xxiii/r2305.pdf (hereinafter "SCAQMD Rule 2305"); S. Coast Air Quality Mgmt. Dist., Rule 316: Fees for Rule 2305 (adopted May 7, 2021; most recently amended May 3, 2024), https://www.aqmd.gov/docs/default-source/rule-book/reg-iii/r316.pdf (hereinafter "SCAQMD Rule 316"); *see generally* S. Coast Air Quality Mgmt. Dist., *About South Coast AQMD*, https://www.aqmd.gov/aq-spec/aboutscaqmd (explaining that SCAQMD includes "all of Orange County and the urban portions of Los Angeles, Riverside and San Bernardino counties" and contains "over 16.8 million people—about half the population of the whole state of California").
50 S. Coast Air Quality Mgmt. Dist., *WAIRE Program Annual Report* (Oct. 2024), at 4, https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/annual_report_waire_program_102024.pdf?sfvrsn=c6288561_9.
51 SCAQMD Rule 2305(d)(1).
52 *Id.* Warehouse operators must track the number of truck trips made to and from their warehouses each year "using methods that provide a verifiable and representative record." SCAQMD Rule 2305(d)(1)(B).
53 Annual truck trips are used to calculate warehouse operators' compliance obligation by requiring 0.0025 points per annual truck trip; the rule provides for a gradual ramp-up to this obligation by phasing it in gradually from 2022 to 2026. SCAQMD Rule 2305(d)(1)(A) and Table 2.

Warehouse operators can fulfill their annual points-based compliance obligation in any of three ways.

- First, warehouse operators can take actions listed on a South Coast-provided "menu" of emissions-reducing implementation measures, including buying and using zero-emission (ZE) or near-zero-emission (NZE) on-road trucks and off-road cargo-handling equipment, installing and using zero-emission charging and fueling infrastructure and solar panels, and installing indoor air filters "in residences, schools, daycares, hospitals, or community centers."[54]
- Second, warehouse operators may propose custom plans that are specific to each warehouse and assign points to proposed onsite or offsite actions that reduce emissions relative to baseline levels; once custom plans are approved by South Coast, warehouse operators can earn points by taking actions listed on their custom plan just like actions listed on the South Coast-provided menu.[55]
- Third, warehouse operators can, instead of earning points, fulfill their compliance obligation "through payment of a mitigation fee in the amount of $1,000 for each WAIRE Point"; these fees fund clean technology projects in the area surrounding the warehouse operator.[56]

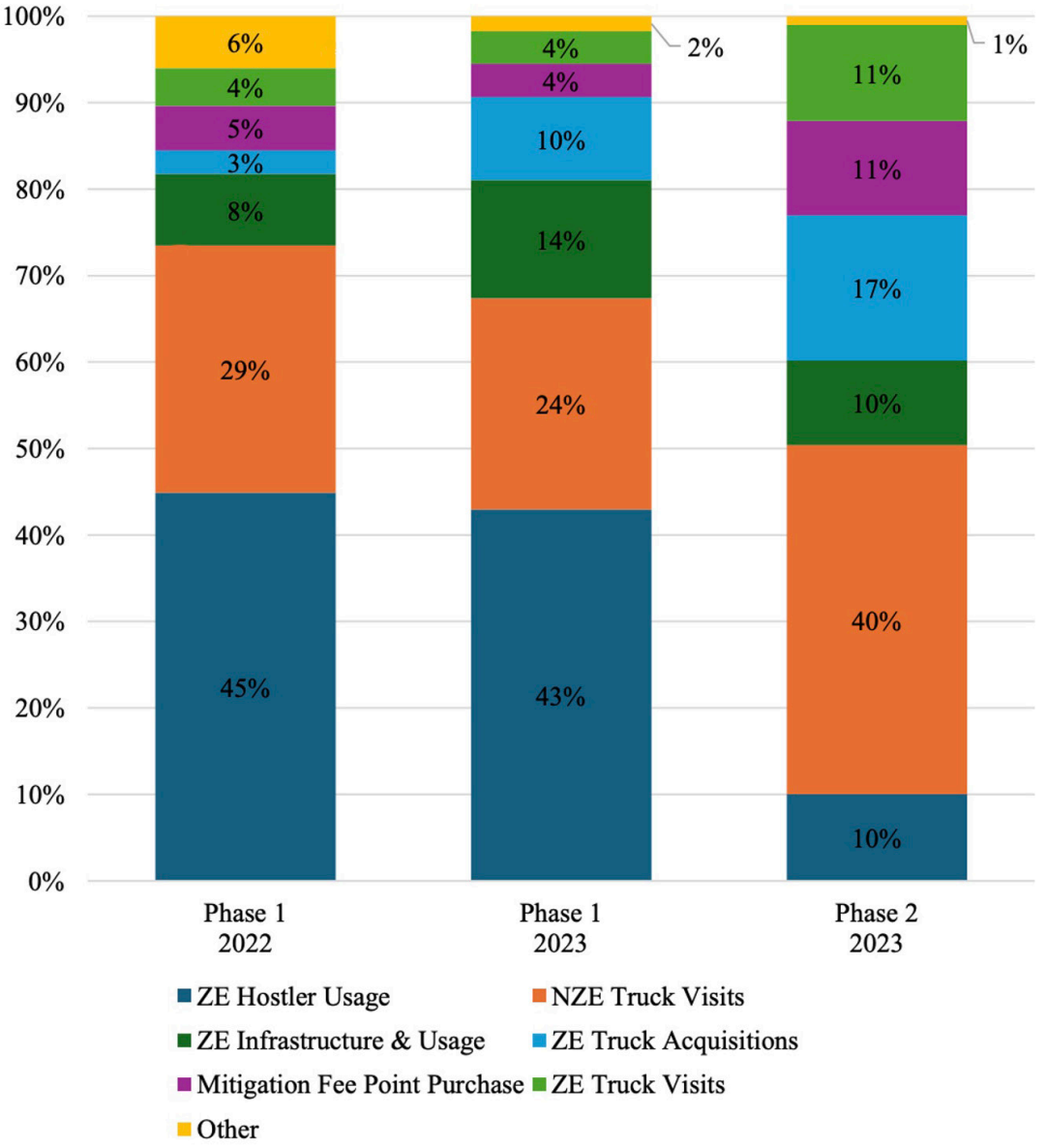
South Coast reported that mitigation fees accounted for "approximately 5% of the total" points earned by warehouse operators during the first two years of the Warehouse ISR's implementation.

South Coast reported that mitigation fees accounted for "approximately 5% of the total" points earned by warehouse operators during the first two years of the ISR's implementation (2022 and 2023), amounting to "approximately $29.7 million in mitigation fees."[57] South Coast will award funds from mitigation fees based on solicitations from third parties, which may also solicit grant money from the $500 million Climate Pollution Reduction Grant that South Coast received from the EPA to invest in zero-emission infrastructure.[58] South Coast also requires recipients of funds from mitigation fees to employ specific pro-labor practices and, notably, ensure that any "ZE charging or fueling infrastructure for on-road vehicles that are not yard trucks" that recipients build are "available for public use."[59]

The Warehouse ISR had a phased implementation schedule, applying to warehouses greater than or equal to 250,000 sq ft. in size in 2022 (Phase 1), then expanding to warehouses between 250,000 and 150,000 sq ft. in size in 2023 (Phase 2), and all warehouses greater than or equal to 100,000 square feet in size in 2024 (Phase 3).[60] The WAIRE Program's most recent annual report parses how warehouse operators chose to fulfill their compliance obligations in 2022 and 2023:[61]

54 SCAQMD Rule 2305, Table 3.
55 SCAQMD Rule 2305(d)(4).
56 SCAQMD Rule 2305(d)(5); *see* SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50 at 25 ("The WAIRE Mitigation Program will fund projects that achieve and/or facilitate emission reductions in the same SRAs [Source Receptor Areas] and counties in which the mitigation fees were paid. If sufficient projects are not identified in each individual SRA relative to the available funding, funds may be directed either to an adjacent SRA in the same county or held for a subsequent funding cycle.").
57 SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50, at 19.
58 *Id.* at 27; *see* Press Release, U.S. EPA, Biden-Harris Administration Announces Nearly $500 Million for Effort to Cut Transportation- and Goods Movement-Related Climate Pollution in Southern California (July 22, 2024), https://www.epa.gov/newsreleases/biden-harris-administration-announces-nearly-500-million-effort-cut-transportation-and.
59 SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50, at 27 ("Any recipients of WAIRE Mitigation Fee Program funds for projects that involve construction work must use a skilled and trained workforce as defined in Public Contract Code section 2601 to perform such work. . . . Any recipients of WAIRE Mitigation Fee Program funds for projects that involve the installation of [EV] infrastructure shall: 1) be installed by a contractor with the appropriate license classification . . . and at least one electrician on each crew, at any given time, holds an [EV] Infrastructure Training Program certification, and 2) meet a requirement that at least 25 percent of the total electricians working on an [EV] infrastructure project installing a charging port supplying 25 kW or more, at any given time, hold [EV] Infrastructure Training Program certification, consistent with the Public Utilities Code section 740.20. . . . Any recipients of WAIRE Mitigation Fee Program incentives shall disclose any labor violations in the three years prior to receiving funding and during the life of the funded project.").
60 SCAQMD Rule 2305, Table 1.
61 SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50, at 39.

Figure A-5: Total Earned WAIRE Points Menu Items and Mitigation Fees (Normalized)



Source: Image reproduced from S. Coast Air Quality Mgmt. Dist., WAIRE Program Annual Report (Oct. 2024), at 39, https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/annual_report_waire_program_102024.pdf.

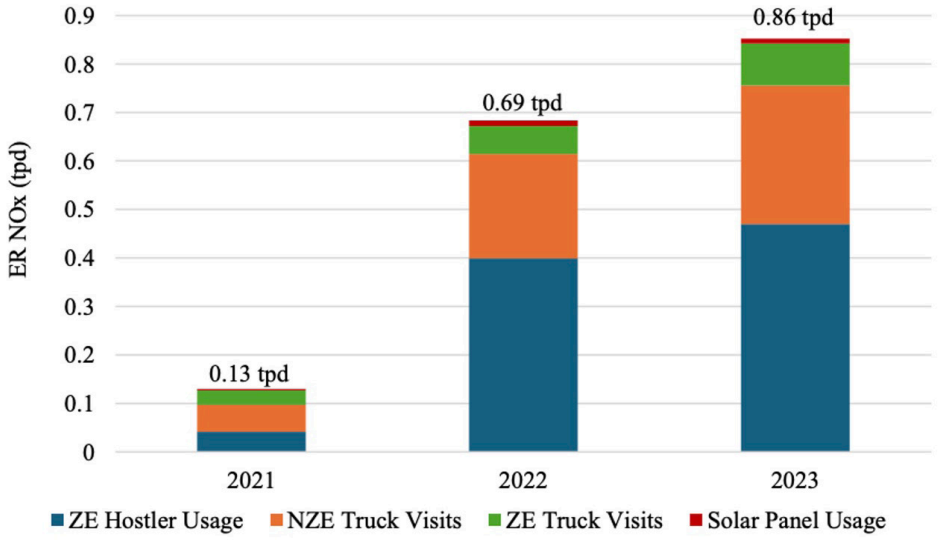
About 90% or more of compliance was achieved through direct implementation of emission reduction measures by regulated entities, rather than through payment of mitigation fees.

Figure A-5 shows that in all three phases (i.e., across all cohorts of regulated entities in 2022 and 2023), at least half of all compliance points were awarded for a combination of near-zero-emission (NZE) truck visits and zero-emission (ZE) hostler usage ("hostlers" are a common type of cargo-handling equipment used for moving cargo containers, also referred to as "yard trucks"). Across all three phases, about 90% or more of compliance was achieved through direct implementation of emission reduction measures by regulated entities, rather than through payment of mitigation fees. The fact that only about 10% or less of compliance was achieved via mitigation fees bodes well for the potential for ISRs like South Coast's Warehouse ISR to have an appreciable impact on air pollution in local communities immediately surrounding regulated entities.

When adopting the rule, local air regulators expected its benefits to far outweigh its costs. South

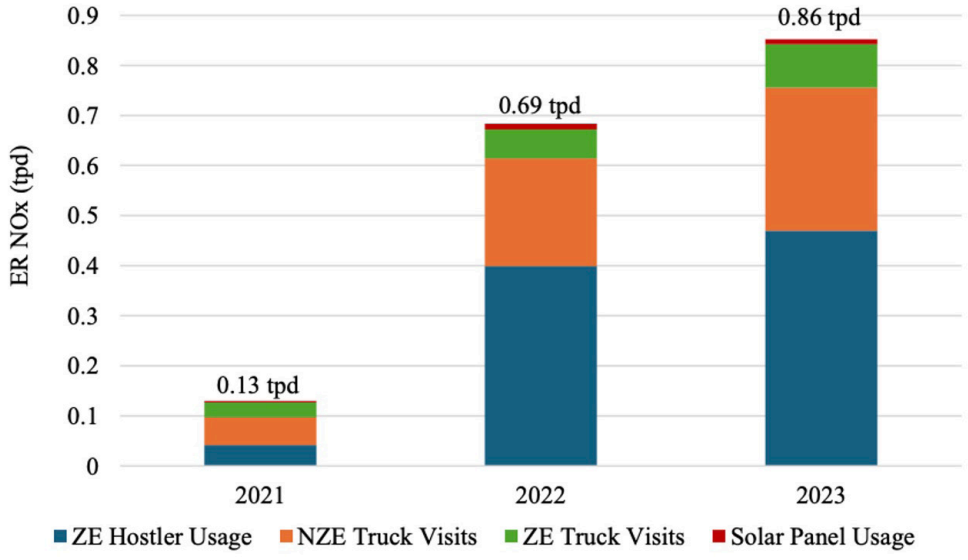
Coast's socioeconomic impact assessment in the lead-up to the ISR's adoption in 2021 estimated that the ISR would "result in 150 to 300 fewer deaths, 2,500 to 5,800 fewer asthma attacks, and 9,000 to 20,000 fewer work loss days from 2022-2031" with an "expected total discounted monetized public health benefits rang[ing] from $1.2 to $2.7 billion" over that time period.[62] Since implementation began in 2022, South Coast has reported "strong adoption and implementation of actions that contribute to emission reductions" in the last three years, as illustrated in WAIRE Program's most recent annual report:[63]

Figure 18: NOx Emission Reductions from Reported Actions (tpd)



Source: Image reproduced from S. Coast Air Quality Mgmt. Dist., WAIRE Program Annual Report (Oct. 2024), at 24, https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/annual_report_waire_program_102024.pdf.

Figure 19: DPM Emission Reductions from Reported Actions (tpd)



Source: Image reproduced from S. Coast Air Quality Mgmt. Dist., WAIRE Program Annual Report (Oct. 2024), at 24, https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/annual_report_waire_program_102024.pdf.

62 S. Coast Air Quality Mgmt. Dist., *Second Draft Socioeconomic Impact Assessment for Proposed Rule 2305 and Proposed Rule 316* (Apr. 2021), at ES-9, https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr-2305_sia_2nd-draft_4-7-21.pdf.

63 SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50, at 22, 24.

Though critics had speculated that the Warehouse ISR might harm industry if adopted, the number of warehouses in the South Coast Air Basin has grown robustly since the rule's adoption, with South Coast's analysis revealing that the ISR "had minimal impact on warehousing demand," as predicted in South Coast's Final Socioeconomic Impact Analysis for Rule 2305.[64] Compliance with the rule appears to be fair, with room for improvement as rule implementation continues.[65] South Coast has engaged in considerable public outreach to warehouses about their compliance obligations and has pursued enforcement actions against non-compliant warehouses. Specifically, as of August of last year, "South Coast AQMD inspectors have visited over 2,323 warehouse locations to provide outreach material" and "through mid-October 2024, staff identified over 350 facilities that submitted late reports or failed to submit" and have thus "issued over 350 Notices of Violation (NOVs)" as well as conducted "desk audits" and "unannounced site visits" to verify information reported by warehouse operators.[66] If South Coast's "inspectors observe a potential violation, a Notice to Comply (NC) may be issued to request information or to order the facility to take corrective action"; if noncompliance persists, "a NOV may be issued" and "referred to the South Coast AQMD Office of General Counsel for settlement negotiations" and, "if no settlement is reached, a civil lawsuit may ultimately be filed in superior court."[67] South Coast has stated that "violators of air quality rules can face civil penalties of up to $11,700 per day of noncompliance with greater penalties available for negligent and intentional violations."[68]

Like San Joaquin Valley's ISR, South Coast's Warehouse ISR has withstood legal challenge.

Like San Joaquin Valley's ISR, the Warehouse ISR has withstood legal challenge. Trade organizations representing trucking companies and commercial airlines brought suit soon after the rule was finalized, alleging that the ISR was preempted by federal law and contrary to state law.[69] The U.S. District Court for the Central District of California granted summary judgment in favor of South Coast on all of the plaintiffs' federal claims, and summarily dismissed with prejudice the plaintiffs' state law claims pursuant to a joint stipulation of the parties.[70] The plaintiffs did not file an appeal of either dispositive order, and the Warehouse ISR has not otherwise been challenged in court.[71] NRDC, one of the many environmental groups that intervened in that case in support of South Coast, described the court's order upholding the ISR as "a resounding confirmation of South Coast's legal authority to adopt indirect source rules throughout the southern coast" and noted that the order "opens the door for similar measures in other parts of California and the nation" that are also suffering from indirect source pollution.[72]

64 *Id.* at 4.

65 *Id.* at 37 (finding that just over 40% of warehouses ≥250,000 sq. ft. have submitted the required ISR program reports and initiated compliance actions, while just under 30% of warehouses between 150,000 and 250,000 sq. ft. have submitted the required reports and initiated compliance actions).

66 *Id.* at 28.

67 *Ibid.*

68 S. Coast Air Quality Mgmt. Dist., *South Coast AQMD Issues Violations for Warehouses in Noncompliance with Rule 2305* (Feb. 2024), https://www.aqmd.gov/home/research/pubs-docs-reports/newsletters/jan-feb-2024/warehouse-compliance.

69 *Cal. Trucking Ass'n v. S. Coast Air Quality Mgmt. Dist.*, No. LA CV21-06341 JAK (MRWx), 2023 WL 9622548 (C.D. Cal. Dec. 14, 2023); *see* SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50, at 31.

70 *Cal. Trucking Ass'n*, No. LA CV21-06341 JAK (MRWx), 2023 WL 9622548, *at *1; Cal. Trucking Ass'n v. S. Coast Air Quality Mgmt. Dist.*, No. LA CV21-06341 JAK (MRWx), Order Re Joint Stipulation and Consent Motion to Dismiss with Prejudice, Dkt. 167 (C.D. Cal. Jan. 18, 2024).

71 SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50, at 31; Air Plan Approval; California; South Coast Air Quality Management District, 89 Fed. Reg. 73,568 (Sept. 11, 2024), https://www.federalregister.gov/documents/2024/09/11/2024-20349/air-plan-approval-california-south-coast-air-quality-management-district.

72 Nat. Res. Def. Council, *California Trucking Association v. South Coast Air Quality Management District et al.* (Apr. 9, 2024), https://www.nrdc.org/court-battles/california-trucking-association-v-south-coast-air-quality-management-district-et.

The Warehouse ISR is now an approved component of California's SIP. The U.S. EPA approved the Warehouse ISR as part of California's SIP in September 2024, rendering the rule federally enforceable by EPA and citizens pursuant to the federal Clean Air Act § 304.[73] EPA's press release accompanying its approval touted the availability of ISRs as a valuable regulatory tool for local air districts to use to comply with the federal Clean Air Act, stating that "indirect sources, such as warehouses, ports, and rail yards, all contribute to pollution and therefore must be addressed so our communities can breathe cleaner air," including through South Coast's "larger multi-pronged strategy to reduce emissions associated with indirect sources and improve public health."[74]

South Coast's Rule 2306 ("Freight Rail Yards ISR")

The U.S. EPA approved the Warehouse ISR as part of California's SIP in September 2024, rendering the rule federally enforceable by EPA and via citizen suits.

The South Coast air district has also adopted a rule aimed at reducing harmful pollution from the trains, trucks, cargo-handling equipment, transport refrigeration units, and other sources of indirect source emissions at rail yards.[75] The Freight Rail Yards ISR was adopted by the district in August 2024, after years of developing the ISR in consultation with community members and environmental groups.[76] It applies to all new and existing rail yards in the South Coast Air Basin and "requires NOx emission reductions for each rail yard," mandating that "operators share zero-emission infrastructure plans with South Coast, helping to chart a path for wide-scale zero-emissions infrastructure buildout."[77] The rule has not yet gone into effect and is unlikely to do so in the near future, for reasons discussed below.

The rule would apply to about 25 rail yards in the South Coast Air Basin "where locomotive switching activities occur or where cargo is loaded or unloaded from railcars for transportation to or from the rail yard using the rail yard operator's locomotives." These rail yards would be "required to achieve up to 82 percent emissions reductions by 2037 through a variety of actions including using cleaner technologies or lower emitting equipment associated with rail yards."[78] The Sierra Club projected that the ISR, in conjunction with other state regulations, would "reduce NOx emissions by over 9 tons per day between 2025 and 2050 and prevent around 275 premature deaths annually."[79] South Coast estimates that rail yard-related emissions overall "contribute about 9% of total smog-forming emissions" in the South Coast Air Basin.[80]

However, this rule is in limbo. It was drafted such that it would become effective only if and when U.S. EPA approves its inclusion in the California State Implementation Plan and grants the required authorizations for CARB's associated regulations on locomotives and drayage truck fleets.[81] On January 13, 2025—one week before the inauguration of Donald Trump—CARB withdrew its

73 *Id.*; Air Plan Approval; California; South Coast Air Quality Management District, 89 Fed. Reg. 73,568.
74 Press Release, U.S. EPA, EPA Approves South Coast AQMD's Groundbreaking Rule to Reduce Southern California Air Pollution Associated with Warehouses (Sept. 11, 2024), https://www.epa.gov/newsreleases/epa-approves-south-coast-aqmds-groundbreaking-rule-reduce-southern-california-air.
75 Press Release, S. Coast Air Quality Mgmt. Dist., South Coast AQMD Governing Board Adopts Rail Yards Indirect Source Rule (Aug. 2, 2024), https://www.aqmd.gov/docs/default-source/news-archive/2024/rail-yards-isr--august-2-2024.pdf; Press Release, Sierra Club, Clean Air Victory: New Rule Will Curb Deadly Pollution From Southern California Railyards (Aug. 2, 2024), https://www.sierraclub.org/press-releases/2024/08/clean-air-victory-new-rule-will-curb-deadly-pollution-southern-california.
76 S. Coast Air Quality Mgmt. Dist., Rule 2306: Freight Rail Yards (adopted Aug. 2, 2024), http://www.aqmd.gov/docs/default-source/rule-book/recent-rules/r2306-080224.pdf (hereinafter "SCAQMD Rule 2306"); Press Release, SCAQMD, South Coast AQMD Governing Board Adopts Rail Yards Indirect Source Rule, *supra* note 75; *see* SoCal Communities for AQMD Action, *Railyards*, https://actnowaqmd.com/initiatives/railyards.
77 Press Release, Sierra Club, Clean Air Victory, *supra* note 75.
78 Press Release, SCAQMD, South Coast AQMD Governing Board Adopts Rail Yards Indirect Source Rule, *supra* note 75.
79 Press Release, Sierra Club, Clean Air Victory, *supra* note 75.
80 Press Release, SCAQMD, South Coast AQMD Governing Board Adopts Rail Yards Indirect Source Rule, *supra* note 75.
81 *Id.*; *see* SCAQMD Rule 2306(k) ("Effective Date").

requests to U.S. EPA for those authorizations, for both its In-Use Locomotive Regulation and its Advanced Clean Fleets Regulation (which includes the Drayage Truck Requirements that must be approved by the U.S. EPA before the ISR becomes effective).[82] Therefore, the Freight Rail Yards ISR is currently stalled.

South Coast's Proposed Rule 2304 ("Commercial Marine Ports ISR")

The ports of Los Angeles and Long Beach are critically important pillars of the region's economy. They are also, collectively, the largest NOx emitter in the South Coast region. Diesel emissions from cargo-moving trucks, ships, trains, and equipment at the Los Angeles-Long Beach ports "are the largest single source of smog-forming pollution in the nation's smoggiest region."[83] As the Los Angeles Times editorial board has noted, "communities of color in harbor-area neighborhoods [surrounding the ports] suffer higher rates of asthma, cancer and other life-threatening illnesses."[84] To tackle these issues, South Coast is currently developing Proposed Rule 2304, the Commercial Marine Ports ISR.[85]

The proposed rule would, if adopted, require the Ports of Los Angeles and Long Beach to each prepare and submit to South Coast a Port Wide Charging and Fueling Infrastructure Plan ("Plan"), no later than August 1, 2027.[86] These Plans would include details on how the Ports will install charging and fueling infrastructure to support the ongoing clean energy transition, and develop and follow a comprehensive port wide infrastructure plan with milestones and target dates for each source of air pollution at the Ports: drayage trucks, cargo-handling equipment, on-port switchers, harbor craft, and ocean-going vessels.[87] Absent special justification, the Plans must set targets of 100% ZE cargo-handling equipment by 2030 and 100% ZE drayage trucks by 2035.[88] The Plans must also assess the anticipated energy demand and supply from existing infrastructure and future infrastructure projects; estimate the cost of adding charging infrastructure and clean fueling stations to "green" the on-port energy supply and identify potential funding sources; assess the workforce needed to build out that clean energy infrastructure and the expected impact on the on-port workforce once that infrastructure is in operation; and describe potential environmental impacts, as well as any existing or future CEQA and/or NEPA documents to be relied upon by the Plan.[89] After the Plans are submitted, South Coast would approve or disapprove of these Plans,

82 Letter from Cal. Air Res. Bd. to U.S. EPA, *Re: Withdrawal of California's Request for Authorization, Pursuant to Clean Air Act Section 209(e)(2), of the In-Use Locomotive Regulation, Docket ID EPA-HQ-OAR-2013-0574* (Jan. 13, 2025) (citing 89 Fed. Reg. 14,484 (Feb. 27, 2024)), https://www.epa.gov/system/files/documents/2025-01/ca-loco-carb-withdrawal-loco-ltr-2025-1-13.pdf; Letter from Cal. Air Res. Bd. to U.S. EPA, *Re: Withdrawal of California's Request for a Waiver, Pursuant to Clean Air Act Section 209(b), and Request for Authorization, Pursuant to Clean Air Act Section 209(e)(2), for the Advanced Clean Fleets (ACF) Regulation, Docket ID EPA-HQ-OAR-2023-0589* (Jan. 13, 2025) (citing 89 Fed. Reg. 57,151 (July 12, 2024)), https://www.epa.gov/system/files/documents/2025-01/ca-acf-carb-withdrawal-ltr-2025-1-13.pdf; *see also* Cal. Air Res. Bd., Advanced Clean Fleets, https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets ("At this time, CARB is evaluating next steps. CARB is not enforcing the existing portions of the ACF Regulation that require a federal waiver or authorization, such as the portions of the ACF Regulation that apply to high priority and drayage fleets. However, not all elements of the ACF Regulation require a federal waiver or authorization. The state and local government fleets portion of the ACF Regulation remains unaffected. Because CARB is committed to reducing air pollution to protect public health, we encourage affected industries to continue reducing their emissions and we look forward to continued partnership in these efforts.").

83 L.A. Times Editorial Board, *Editorial: SoCal air quality officials haven't acted to cut port pollution. They escaped to a desert resort instead*, L.A. Times (May 13, 2024), https://www.latimes.com/opinion/story/2024-05-13/port-pollution-retreat-south-coast-air-quality-management-district.

84 *Id.*

85 S. Coast Air Quality Mgmt. Dist., Proposed Rule 2304: Commercial Marine Ports (adopted Aug. 2, 2024), https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr-2304_commercial-marine-ports_initial-prelim-draft-rl_v2025-02-21_for-pdf.pdf (hereinafter "SCAQMD Proposed Rule 2304").

86 S. Coast Air Quality Mgmt. Dist., Presentation: Working Group Meeting, Proposed Rule 2304 – Commercial Marine Ports (Feb. 28, 2025), https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr2304-wgm-11-presentation.pdf.

87 *Id.*

88 SCAQMD Proposed Rule 2304(e)(1)(C).

89 SCAQMD Proposed Rule 2304(e)(2).

including by assessing the likelihood of their milestones being achieved by their target dates.[90] Once approved, the Ports would submit Plan Implementation Progress Reports annually until all of the elements of the Plans are installed and fully operational.[91]

This effort began in February 2022, when South Coast initiated the rulemaking process for a Ports ISR, which previously focused on container terminals only with a subsequent rulemaking planned for non-containerized terminals; now, the Proposed Rule addresses both container and non-containerized terminals.[92] Rule development has been met with significant controversy. Representatives from the Ports and shipping industry groups have portrayed this kind of potential regulation as too challenging and too costly, and instead have proposed collaborative, voluntary measures involving South Coast.[93] Progress on the Ports ISR has been slowed by what some characterize as a coordinated opposition effort in which "shipping industry lobbyists have been waging war against the ISR concept and have convinced some port officials to join them."[94] At South Coast's 2024 annual retreat, Governing Board Chair Vanessa Delgado expressed that she was "reluctant to impose more regulations on the ports when it will be hard enough for them to meet their existing obligations."[95] Nevertheless, the Ports ISR remains under development and the rulemaking process continues apace. Two in-person community meetings are to be held in late spring or early summer 2025 and the Board is anticipated to consider adopting the rule at a public hearing in the third quarter of 2025.[96]

C. Ongoing legislative efforts

Pro-ISR bills can be helpful to direct local air districts to exercise their existing authority or to directly establish statewide ISRs implemented and enforced by state-level environmental agencies.

Some states and cities are considering the adoption of pro-ISR bills, often inspired by examples from California air districts. New legislation is not needed to provide air districts with the authority to adopt ISRs, because (as discussed in Sections II and III) current law provides sufficient authority to adopt ISRs. Nevertheless, pro-ISR bills can be helpful to direct local air districts to exercise their existing authority in these directions or, as with the New York and New Jersey bills described below, to directly establish statewide ISRs implemented and enforced by state-level environmental agencies. These legislative efforts have been backed by environmental and public health advocates and are attracting the support of lawmakers eager to do more to address harms felt by overburdened communities, especially in light of the e-commerce boom. We discuss four such efforts below, focusing on proposed legislation in New York, New Jersey, California, and New York City.

In New York state, a pro-ISR bill called the Clean Deliveries Act would require the review and control of indirect warehouse emissions, inspired in part by South Coast's existing warehouse rule.[97] The bill establishes an ISR for warehouses with 50,000 or more square-feet, as well as any warehouse owned or operated by any person who in aggregate owns or operates 500,000

90 SCAQMD, Presentation: Proposed Rule 2304 (Feb. 28, 2025), *supra* note 86.
91 *Id.*
92 S. Coast Air Quality Mgmt. Dist., Presentation: Working Group Meeting, Proposed Rule 2304 – Indirect Source Rule for Commercial Marine Ports – Container Terminals (Jan. 24, 2024), https://www.aqmd.gov/docs/default-source/planning/fbmsm-docs/pr2304_wgm-no-6.pdf.
93 L.A. Times Editorial Board, *supra* note 83.
94 Fernando Gaytan, *No More Delays: Clean Up SoCal Port Pollution*, Earthjustice (Sept. 24, 2024), https://earthjustice.org/experts/fernando-gaytan/no-more-delays-clean-up-socal-port-pollution.
95 L.A. Times Editorial Board, *supra* note 83.
96 SCAQMD, Presentation: Proposed Rule 2304 (Feb. 28, 2025), *supra* note 86.
97 The Clean Deliveries Act passed the N.Y. state Senate in 2024 but did not pass the Assembly before the legislative session ended. The bill's sponsors plan to reintroduce it this year and are hopeful that the bill will pass in 2025. *See* N.Y. Senate, *N.Y. Sen. Bill S2127A*, https://www.nysenate.gov/legislation/bills/2023/S2127/amendment/A (titled N.Y. Assem. Bill A1718C in the Assembly); Earthjustice, *In Final Days of Legislative Session, New York Senate Heeds Call for Cleaner Air and Corporate Accountability by Passing the Clean Deliveries Act* (June 6, 2024), https://earthjustice.org/press/2024/in-final-days-of-legislative-session-new-york-senate-heeds-call-for-cleaner-air-and-corporate-accountability-by-passing-the-clean-deliveries-act.

square-feet of warehouse space in the state.[98] The bill directs the state to review emissions from those warehouses and require warehouse operators to choose from an array of compliance options to minimize or mitigate the air pollution that they cause, as well as commission a study of the feasibility, benefits, and costs of implementing low- and zero-emissions areas for air pollution hotspots.[99] The bill states that operators must develop "an air emissions reduction and mitigation plan requiring warehouse operators to minimize pollution" by adopting measures such as "acquiring zero-emission vehicles & charging infrastructure; installing solar panels and/or batteries on-site; considering alternative transportation modes for incoming or outgoing trips where appropriate; or paying additional fees."[100] The bill also provides "enhanced protections for warehouses operating in disadvantaged communities or that impact schools and similar facilities"; requires new warehouse development or re-development projects to obtain a permit; and mandates that warehouse operators report data related to truck traffic and emissions mitigation measures.[101] While the New York bill was largely based on South Coast's Warehouse ISR, there is a novel provision imposing labor protections for the regulated entities' employees.[102]

In New Jersey, a pro-ISR bill called the Warehouse and Port Pollution Reduction Act was introduced in 2024 and remains in committee; advocates hope to pass it by the end of the current two-year 2024-2025 legislative session.[103] The bill requires the state Department of Environmental Protection to "establish an indirect source review program for regulated facilities" with the goal of "reduc[ing] air pollution emissions from regulated facilities to zero by 2050."[104] Proponents of

98 *See* N.Y. Sen. Bill S2127A § 74-0101(2) (2024), https://legislation.nysenate.gov/pdf/bills/2023/S2127A.
99 *See* Press Release, Earthjustice, ElectrifyNY Coalition Launches Mega-Warehouse Watchlist (Dec. 9, 2024), https://earthjustice.org/press/2024/electrifyny-coalition-launches-mega-warehouse-watchlist.
100 *Id.*
101 *Id.*
102 N.Y. Sen. Bill S2127A § 74-0103(2) (2024) (requiring that, "when considering alternatives to truck or van trips for incoming or outgoing trips, the warehouse operator will consult impacted and displaced employees in selecting an alternative to truck or van trips and will only utilize such alternative upon agreement with the impacted and displaced employees" and, if applicable, their "exclusive bargaining unit representative" if "the bargaining unit or terms of the collective bargaining agreement is impacted").
103 N.J. Legislature, *Bill S3546, Session 2024–2025*, https://www.njleg.state.nj.us/bill-search/2024/S3546; Earthjustice, *New Jersey Lawmakers Propose to Cut Air Pollution from Warehouses and Ports* (July 5, 2024), https://earthjustice.org/press/2024/new-jersey-lawmakers-propose-to-cut-air-pollution-from-warehouses-and-ports.
104 N.J. Sen. Bill 3546(3) (2024), https://pub.njleg.state.nj.us/Bills/2024/S4000/3546_I1.PDF.

Proponents of the New Jersey bill have stated that it "builds upon similar indirect source review efforts in states such as California that are already seeing success in the fight against diesel pollution."

the bill have stated that it "builds upon similar indirect source review efforts in states such as California that are already seeing success in the fight against diesel pollution, and would provide cleaner air for everyone in New Jersey."[105] The New Jersey bill is written expansively to apply to both warehouses and ports. Specifically, the bill applies to warehouses with "100,000 square feet or more of business area"; warehouses in an overburdened community with "50,000 square feet or more of business area"; and any "facility that generates 50 or more truck trips per day, including a port or any part of a port."[106] The bill requires the Department to carry out air pollution monitoring of certain facilities, especially those in overburdened communities, including "fence-line monitoring," "analysis of satellite data," "monitoring of land use, on-site combustion, truck counts and ages, idling and hoteling duration, and other emissions sources," and "identification of defeat devices" (i.e., devices that inhibit or bypass a vehicle's emissions controls).[107] The bill also requires the "determination of the annual emissions rate for criteria air pollutants from the regulated facility and the expected concentration increases of criteria air pollutants."[108]

In California, the state legislature is considering a bill to clarify that ISRs may be adopted statewide, not only at the local air district level. The bill provides that CARB has the authority to regulate indirect source emissions caused by stationary sources through the adoption of ISRs, but would not directly adopt any ISRs itself.[109] Additionally, for any ISRs adopted by CARB in the future, the bill would require CARB "to establish a schedule of fees on facilities and mobile sources to cover the reasonable costs of implementing and enforcing the regulations."[110] Finally, the bill would "require the state board to establish a statewide reporting program to quantify emissions and annually collect related information from indirect sources of emissions."[111]

105 Press Release, Environmental Defense Fund, New Jersey State Legislators Introduce Bill to Reduce Air Pollution Linked to Warehouses and Ports (July 1, 2024), https://www.edf.org/media/new-jersey-state-legislators-introduce-bill-reduce-air-pollution-linked-warehouses-and-ports.
106 N.J. Sen. Bill 3546(2) (2024).
107 N.J. Sen. Bill 3546(5)(f) (2024).
108 *Id.*
109 Cal. Assem. Bill 914 (2025), https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202520260AB914; *see* Cal. Energy Transition, *Bill Would Regulate Emissions from "Indirect" Sources* (Mar. 26, 2025), https://www.californiaenergytransition.com/p/bill-would-regulate-emissions-from.
110 Cal. Assem. Bill 914 (2025).
111 *Id.*

Lastly, cities can jump into the ISR mix, too. In New York City, for example, the City Council is considering a proposal to amend the municipal code to require the City-level environmental agency "to promulgate an indirect source rule to reduce emissions attributable to the use of indirect sources, such as warehouses or other structures that attract mobile sources of air pollution, such as vehicles."[112] This effort is still at an early stage, having been introduced in December 2024 and first discussed in a February 2025 committee hearing.

III. Assessing the Opportunity Presented by Indirect Source Rules

Drawing lessons from these California cases and from consideration of ISRs by other air districts, in this section we assess the opportunities presented by indirect source rules and some of the barriers to their adoption. First, we conclude that ISRs are on very strong legal footing and give our bases for this conclusion. Second, we discuss the flexible and durable nature of ISRs to meet pressing air quality needs. Third, we ask why ISRs are not yet more common, given their legal strengths and the urgent need for additional progress toward achieving air quality across much of the country.

A. ISRs are on a strong legal footing under federal law, as recognized by federal courts and key agencies including U.S. EPA

The legal authority of states and air districts to adopt ISRs under the federal Clean Air Act is now well established. Section 110 of the federal Clean Air Act authorizes states to include ISRs in their State Implementation Plan (SIP), stating that "any State may include in a State implementation plan . . . any indirect source review program" and the EPA "Administrator may approve and enforce, as part of an applicable implementation plan, an indirect source review program which the State chooses to adopt and submit."[113] The Act goes on to define "indirect source" as "a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution" as well as "parking lots, parking garages, and other facilities subject to any measure for management of parking supply."[114] As affirmed by the Ninth Circuit in its case upholding San Joaquin Valley's Large Development Projects ISR, these Clean Air Act provisions amount to a grant of authority to states and local air districts to regulate stationary sources for the control of mobile source emissions via indirect source rules.[115]

This authority extends to all air districts regardless of attainment status. The Act defines "indirect source review program" to include "such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution, the emissions from which would cause or contribute to air pollution concentrations" either "exceeding any national primary ambient air quality standard" or "preventing maintenance of any such standard."[116] Thus, the Act allows for ISRs in areas of nonattainment for one or more NAAQS, as well as in attainment areas

112 N.Y. City Council, *Summary of Int. No. 1130-2024*, https://legistar.council.nyc.gov/LegislationDetail.aspx?ID=7041944&GUID=64DA152F-2B02-4AA3-B716-AF327DD61032.

113 42 U.S.C. § 7410(a)(5)(A) and (B).

114 *Id.* § 7410(a)(5)(C).

115 *Nat'l Ass'n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.*, 627 F.3d 730, 737, 739 n.8 (9th Cir. 2010) (holding the Large Development Projects ISR to be a legally-authorized regulatory tool by which local air districts may regulate stationary sources of air pollution—like construction sites—based on both their direct emissions and the indirect source emissions that they cause, because § 110(a)(5) "is a grant of power to the states," including local air districts).

116 42 U.S.C. § 7410(a)(5)(D).

Courts have repeatedly held that properly designed ISRs are distinct from vehicle emissions standards and are not federally preempted.

so long as the ISRs meet the low bar of "assist[ing] in assuring" that the area remains in attainment.[117]

Opponents of ISRs typically argue that such rules are preempted by federal law, often relying on provisions of the Clean Air Act or other federal statutes that limit the ability of states and localities to set emissions standards for, or otherwise regulate, mobile sources. Those arguments have been rejected in all of the cases in which they have, to date, been raised—with courts repeatedly holding that properly designed ISRs are distinct from vehicle emissions standards.

For example, South Coast's adoption of the Warehouse ISR was challenged in federal court by the California Trucking Association (CTA) and Airlines for America (A4A), trade organizations representing trucking companies and commercial airlines, respectively, that are involved in the freight industry.[118] The plaintiffs alleged, among other things, that the ISR was preempted by the federal Clean Air Act (CAA), the federal Airline Deregulation Act (ADA), and the Federal Aviation Administration Authorization Act (FAAAA) for a range of reasons, including that the ISR amounted to an unlawful local emissions standard. In rejecting those arguments, the court held that the Warehouse ISR "does not command that any businesses only purchase vehicles with particular emission characteristics"—which would be preempted by the federal Clean Air Act—because regulated warehouses "can comply with the Rule by taking actions unrelated to the purchase of ZE and NZE trucks" and the factual record shows that "almost 30% of warehouse operators stated that they did not anticipate acquiring or using ZE or NZE trucks or yard trucks to comply with the Rule" at all.[119]

That court also held that the Warehouse ISR is not preempted by the ADA or the FAAAA because the ISR does not meaningfully interfere with the business operations of air carriers; for example, the court held that although the ISR "may increase air carriers' costs of doing business, either when they pay the mitigation fee, acquire or using ZE and NZE trucks, or comply . . . in other ways," "this evidence is insufficient" to establish federal preemption of the ISR unless the ISR "interferes with the relationship between air carriers and their customers"—which it does not.[120]

117 *Id.*
118 *Cal. Trucking Ass'n v. S. Coast Air Quality Mgmt. Dist.*, No. LA CV21-06341 JAK (MRWx), 2023 WL 9622548 (C.D. Cal. Dec. 14, 2023); *see* SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50, at 31.
119 *Cal. Trucking Ass'n*, No. LA CV21-06341 JAK (MRWx), 2023 WL 9622548, at *21, *23.
120 *Id.* at *29.

The court found "no basis to support an inference that these statutes disrupt the balance of federal and state authority over pollution control that was established in the CAA and other statutes."[121] In so holding, the court relied on longstanding precedent in which "the Supreme Court and the Ninth Circuit have already held that the control of air pollution is an activity that is traditionally within the state police power."[122]

Preemption arguments were also rejected by the Ninth Circuit in its decision clearing the way for San Joaquin Valley's Large Development Projects ISR.[123] There, plaintiffs claimed that the Rule amounted to a standard for control of emissions from vehicles, which are preempted by § 209(e)(2) of the Clean Air Act (except in limited circumstances not relevant to the case). The Ninth Circuit upheld the Rule, basing its holding on the fact that "the Rule and the emissions reductions it requires are site-based rather than engine- or vehicle-based" and thus the Rule "regulates an indirect source as a whole."[124] Because the ISR "is targeted at a development site as a whole, its standard or requirement relates to emissions from an indirect source, not from nonroad vehicles or engines," it reasoned. Thus, the Rule is not an emissions standard "relating to the control of emissions from [nonroad] vehicles or engines," and is not preempted by § 209(e)(2).[125]

The Ninth Circuit has held that because San Joaquin Valley's ISR "is targeted at a development site as a whole, its standard or requirement relates to emissions from an indirect source, not from nonroad vehicles or engines" and is thus not an emissions standard that would be federally preempted.

The Ninth Circuit emphasized the need to conceptualize emissions from construction equipment in two different ways, depending on who is being targeted by the relevant regulation: as direct emissions caused by and attributable to the construction equipment itself in the context of regulations targeting such equipment, or as indirect source emissions caused by and attributable to the construction site in the context of regulations targeting such sites. The Ninth Circuit concluded that emissions from construction equipment cannot only be viewed through the lens of direct emissions, because doing so would strip all meaning and legal effect from the federal Clean Air Act's § 110(a)(5) authorizing the creation of indirect source review programs by local air districts:

> The Act, by allowing states to regulate indirect sources of pollution, necessarily contemplates imputing mobile sources of pollution to an indirect source as a whole. If an indirect source review program could not attribute the emissions from mobile sources, while they are stationed at an indirect source, to the indirect source as a whole, states could not adopt any indirect source review program. What allows Rule 9510 to qualify as an indirect source review program under section 110(a)(5) is precisely what allows the Rule to avoid preemption under section 209(e)(2): its site-based regulation of emissions. In this way, the two sections do not conflict, but rather fit together neatly like two interlocking puzzle pieces.[126]

In short, the validity of ISRs under federal law has been recognized without exception by federal courts.

121 *Id.* at *29.
122 *Id.* at *20.
123 *Nat'l Ass'n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.*, 627 F.3d 730, 737 (9th Cir. 2010).
124 *Ibid.*
125 42 U.S.C. § 7543(e)(2), Clean Air Act § 209(e)(2); *Nat'l Ass'n of Home Builders*, 627 F.3d at 734 (also explaining that plaintiffs argued that 42 U.S.C. 7543(e)(1), Clean Air Act § 209(e)(1), explicitly preempted states from adopting emissions standards for new engines smaller than 175 horsepower used in construction equipment or vehicles, in addition to 42 U.S.C. 7543(e)(2)'s requirement that states obtain authorization from EPA before setting standards for all other nonroad vehicles or engines).
126 *Nat'l Ass'n of Home Builders*, 627 F.3d at 739.

B. ISRs are also well founded under California law

Local air districts' authority to regulate indirect sources of air pollution is also very robust under California law. Such authority is expressly codified in multiple provisions of the California Health and Safety Code, including §§ 39002, 40000, 40001, 40702, 40716, 40920, and 40100.6.5. For example, § 40716(a)(1) establishes that a local air district can "adopt and implement regulations to . . . reduce or mitigate emissions from indirect and areawide sources of air pollution" and "[e]ncourage or require the use of measures which reduce the number or length of vehicle trips," while § 42311(g) authorizes local air districts to "adopt, by regulation, a schedule of fees to be assessed on areawide or indirect sources of emissions which are regulated, but for which permits are not issued, by the district to recover the costs of district programs related to these sources." The California Court of Appeal has held that these state laws provided local air districts "specific statutory authority to regulate and assess fees on indirect pollution sources."[127] Moreover, the California legislature has affirmed this authority through a recent enactment: AB 423 (2019) instructs the San Diego County Air Pollution Control District to "consider adopting an indirect source rule" and to publish an exploratory report on ISRs, which shows that the Legislature views ISRs as valid and worthwhile exercises of local air districts' legal authority.[128]

CARB has explicitly recognized local air districts' authority to adopt ISRs, describing the specific duties of local air districts under California law as follows:

> Regional actions are largely controlled by air districts, and include regulations, rules, guidance, and stationary source permitting. The 35 local air districts are generally responsible for addressing criteria air pollutants and toxic air contaminants from industrial and commercial stationary sources, and sources of residential air pollution, such as wood burning. Nearly all stationary equipment that emits into the atmosphere requires an air district permit. Air

127 *Cal. Bldg. Indus. Assn. v. San Joaquin Valley Air Pollution Control Dist.*, 178 Cal. App. 4th 120, 136 (2009).
128 Cal. Health & Safety Code § 40100.6.5(a)(6).

districts also have the authority to adopt transportation control measures and indirect source review rules to help reduce criteria air pollutants and toxic air contaminants from mobile source traffic and congestion.[129]

CARB has also acknowledged the validity of ISRs by adopting community emissions reduction plans (CERPs) by communities proposing the use of ISRs to remedy the environmental injustices that CERPs—and the statute authorizing them, AB 617 (2017)—were created to address. In 2021, CARB approved a CERP by the Portside Community of Barrio Logan, West National City, Logan Heights, and Sherman Heights that proposed studying the potential for an ISR to mitigate indirect source emissions from local warehouses, distribution centers, and port terminals.[130] Similarly, in July 2024, CARB approved a CERP by the International Border Community of San Ysidro and Otay Mesa that proposed a strategy that would "reduce emissions from indirect sources, including heavy-duty vehicles, operating in Otay Mesa and San Ysidro," but stopping short of specifying the exact stationary sources to which the proposed ISR would apply (e.g., warehouses, ports).[131]

The California Court of Appeal upheld San Joaquin Valley's Large Development Projects ISR, rejecting plaintiffs' arguments that the fee component of the ISR violates California's stringent laws governing regulatory fees.

Courts in California have interpreted ISR authority to be robust. The California Court of Appeal has upheld the only ISR ever to be reviewed by that court, the San Joaquin Valley's Large Development Project ISR. Importantly, that court assessed and rejected arguments that the fee component of San Joaquin Valley's ISR violates California's stringent laws governing regulatory fees.[132] Plaintiffs in that case made several arguments attacking the ISR, including its fee structure.

First, the plaintiffs alleged that the ISR's fees were not valid regulatory fees but rather were development fees subject to the requirements of the Mitigation Fee Act, which were not fulfilled prior to the ISR's adoption. The court rejected plaintiffs' claim, finding that the ISR's fees conform to the definition of "regulatory fees" in California case law as fees "charged for the associated costs of regulatory activities [that do] not exceed the reasonable cost of carrying out the purposes and provisions of the regulation."[133] The court recognized that San Joaquin Valley "is specifically required to assess fees on indirect sources of emissions in the San Joaquin Valley to recover the costs of District programs related to these sources" per California Health & Safety Code § 40406, which mirrors the definition of "regulatory fees" in relevant case law.[134] The court held that the ISR's fees were not "development fees" subject to the Mitigation Fee Act, clarifying that "'a fee does not become a "development fee" simply because it is made in connection with a development project,'" but rather "approval of the development project must be conditioned on payment of the fee," which it is not in the context of San Joaquin Valley's ISR.[135] The court concluded that the ISR's fees are "regulatory in nature" and "designed to mitigate growth in air pollution from new development in order to achieve and maintain federal air quality standards."[136]

Second, the plaintiffs argued that, "even if the ISR fees qualify as regulatory fees, they are invalid" because "the District did not employ a valid method for creating the fees, did not estimate

129 Cal. Air Res. Bd., *Community Air Protection Program Blueprint 2.0*, *supra* note 11 (emphasis added).
130 Cal. Air Res. Bd., *Portside Environmental Justice Neighborhoods*, https://ww2.arb.ca.gov/capp/com/cip/portside-environmental-justice-neighborhoods.
131 San Diego County Air Pollution Control Dist., *International Border Communities of San Ysidro and Otay Mesa, Community Emissions Reduction Program* (Mar. 2024), https://www.sdapcd.org/content/dam/sdapcd/documents/capp/meetings/int--border/reports/IBCSC%20CERP%2003.29.24.pdf; *see* Cal. Air Res. Bd., *International Border Communities of San Ysidro and Otay Mesa Community Emissions Reduction Program Approval*, https://ww2.arb.ca.gov/resources/documents/international-border-communities-san-ysidro-and-otay-mesa-community-emissions.
132 *Cal. Bldg. Indus. Assn.*, 178 Cal. App. 4th at 125.
133 *Id.* at 130.
134 *Id.* at 126.
135 *Id.* at 131 (quoting *Barratt American, Inc. v. City of Rancho Cucamonga*, 37 Cal. 4th 685, 699 (2005)) (citing Cal. Gov't Code §§ 66001(a–b), 66005(a), 66006(c)).
136 *Ibid.*

or compute the total costs of the ISR program, and does not have a basis for fairly apportioning the fees.[137] The court rejected all of plaintiff's arguments and concluded that the fees were "validly imposed under the police power for the purpose of legitimate regulation," "do[] not exceed the amount required to carry out the purposes and provisions of the regulation," and are "not levied for unrelated revenue purposes."[138] The court found that "the administrative record provides considerable evidence in support of the District's determination" of the "appropriate computer model" by which it would calculate the fees; the District's "estimate[s of] the emission reduction cost through a careful analysis of past and future emission reduction projects"; and the District's "show[ing] that the fees charged are reasonably related to the amount of pollution, or 'burden,' attributable to each new development [because] the more a new development increases air pollution, the more the developer pays."[139]

The California Court of Appeal emphatically affirmed San Joaquin Valley's legal authority to adopt the Large Development Projects ISR, citing various provisions of the California Health & Safety Code.

Third, the plaintiffs "assert[ed] that the District lacked the authority to impose these fees" because San Joaquin Valley "exceeded its authority in adopting the ISR regulations."[140] The court emphatically affirmed San Joaquin Valley's legal authority to adopt the ISR, citing California Health & Safety Code § 40716(a)(1) establishing that a local air district can "adopt and implement regulations to . . . reduce or mitigate emissions from indirect and areawide sources of air pollution" and "[e]ncourage or require the use of measures which reduce the number or length of vehicle trips."[141] The court also cited § 42311(g) authorizing local air districts to "adopt, by regulation, a schedule of fees to be assessed on areawide or indirect sources of emissions which are regulated, but for which permits are not issued, by the district to recover the costs of district programs related to these sources," and § 40604, specifically requiring San Joaquin Valley to adopt such a schedule of fees.[142] In short, the court held that San Joaquin Valley "has specific statutory authority to regulate and assess fees on indirect pollution sources," which "is precisely what it did in adopting the ISR rules."[143]

To be sure, California law does include some constraints on the creation and implementation of ISRs to which air districts in California must pay careful attention. None of those statutory constraints, however, poses a serious obstacle to the adoption and enforcement of strong ISRs in California. California Health & Safety Code § 40717.5 mandates, for example, that ISRs "require an indirect source to reduce vehicular emissions only to the extent that the district determines that the source contributes to air pollution by generating vehicle trips that would not otherwise occur."[144] This requirement could allow ISRs to be challenged for overbreadth, based on allegations that an ISR is targeting vehicle trips that would have occurred even if the regulated entity did not exist. Such a legal challenge seems unlikely to succeed so long as an ISR applies only to vehicle trips that undeniably occur for the purpose of visiting the regulated entity, as in the rules adopted by San Joaquin Valley and South Coast.

Section 40717.5 also requires ISRs to "make reasonable and feasible efforts to assign responsibility for existing and new vehicle trips in a manner that equitably distributes responsibility among indirect sources," as well as "take into account the feasibility of implementing" the rule and "consider [its] cost-effectiveness."[145] These requirements mandate due consideration but do

137 *Id.* at 125.
138 *Id.* at 131.
139 *Id.* at 133–35.
140 *Id.* at 125, 136.
141 *Id.* at 136.
142 *Ibid.*
143 *Ibid.*
144 Cal. Health & Safety Code § 40717.5.
145 *Id.* Section 40717.5 also requires that ISRs "not place any requirement on public agencies or on indirect sources that would duplicate any requirement placed upon those public agencies or indirect sources as a result of another rule or regulation adopted pursuant to Section 40716 or 40717," like other ISRs or transportation control measures (TCMs).

not require any particular substantive outcome, so ISRs will likely survive scrutiny based on this provision as long as the enacting air district shows that its ISR was drafted in an open and thorough process that touched on the factors of equitable distribution, feasibility and cost-effectiveness.

And finally, California Health & Safety Code § 40440 contains some potentially limiting language whose meaning is not yet settled. California law explicitly authorizes local air districts to adopt ISRs in areas with "high-level, localized concentrations of pollutants or with respect to any new source that will have a significant effect on air quality."[146] The meaning of the term "high-level, localized concentrations of pollutants" in this context is not defined, and the term "significant effect on air quality" is vaguely defined by statute as "a substantial, or potentially substantial, adverse change in the environment."[147] Law firms representing industry have already begun to suggest that these terms may provide avenues to resist regulation, claiming, for example, that South Coast's Warehouse ISR "potentially rests on shaky legal ground" because "its applicability is not limited to South Coast areas with particularly high localized NOx or DPM concentrations."[148] Notably, however, such claims were not actually pressed in litigation over the Warehouse ISR, and they seem particularly inapt where (as in South Coast) the area covered by the rule is an area of nonattainment. Especially given the widespread nonattainment of at least one of the NAAQS and/or CAAQS in the most-populated areas of California, § 40440's restrained language will not likely limit ISR authority in any significant way.

C. ISRs are flexible and durable tools that can be used in a variety of ways to help meet air pollution requirements and public health goals

Indirect source rules are especially useful because of their flexibility, durability, and ability to affect mobile source emissions—which, as noted above, local air districts often cannot regulate directly. These characteristics make them an increasingly attractive choice to advocates, regulators, and other stakeholders as a means to meet elusive air quality goals and protect local communities from public health harms.

As illustrated by the California examples described above, ISRs can take myriad forms. Many types of programs to reduce mobile source emissions from a stationary site can be incorporated into an ISR, so long as the rule regulates a stationary source, is directed at that source as a whole, and avoids federally preempted forms of control. Such programs could include:

- whole-site pollution reduction mandates;
- programs to encourage commuting to worksites by public transit, carpooling, biking, walking, or work-from-home arrangements, including by providing preferential parking for EVs and carpool vehicles;
- programs to install and support ZEV infrastructure on site, such as EV chargers;
- programs that reduce truck idling or other emissions-intensive practices on site; and
- programs that present a flexible menu of compliance options that include these ideas or others.

The ability to charge fees provides another important flexibility. All of the California ISRs on the books today rely at least in part on a fee element that serves at least two functions: It gives

146 *Id.* § 40440.

147 Cal. Pub. Res. Code § 21068.

148 Michael S. McDonough et al., Pillsbury Winthrop Shaw Pittman LLP, *Southern California's New Indirect Source Rule for Warehousing Operations Tests Jurisdictional Waters* (June 29, 2021), https://www.pillsburylaw.com/en/news-and-insights/southern-california-rule-warehousing-operations-test-jurisdictional-waters.html.

regulated sites additional choice in how to meet compliance obligations, and it raises money for the enacting district to spend on additional pollution reduction projects.

Critically, ISRs can be used to target both new and existing sources of air pollution. This was affirmed in litigation over the South Coast Warehouse ISR, in which the court rejected plaintiffs' argument that the federal Clean Air Act's indirect-source-review provision—42 U.S.C. § 7410(a)(5)(D)—only allows ISRs to regulate "new or modified" sources of indirect source emissions. The court held that the Act establishes that "the set of permissible rules 'includ[es]' regulation of new and modified indirect sources," but does not limit ISRs from being applied to existing sources of indirect source emissions as well.[149] The court cited the Act's legislative history declaring that the indirect-source-review provision allows for ISRs to apply to all sources of indirect source emissions: "'An indirect source review program is one which provides for the review of new, existing or modified indirect sources.'"[150]

For these and other reasons, ISRs can be robust tools to address the urgent needs of environmental justice and frontline communities. This is especially true in California, where local air districts have wide-ranging authority to advance environmental justice (EJ) by protecting public health in frontline communities—those impacted first and worst by poor air quality.[151] Pursuant to AB 617 (2017), local air districts are expressly required to address air quality concerns in overburdened communities, and collaborate with CARB on emissions reporting, monitoring, and plans to reduce exposures and emissions in those communities through Community Emission Reduction Programs (CERP).[152] Local air districts are uniquely empowered to pursue EJ because they have the legal authority to "establish stricter standards than those set by law," including the federal and California Clean Air Acts, or those set "by the state board [(CARB)] for nonvehicular sources" of air pollution.[153] This decentralized approach has the benefit of allowing motivated local air districts to adopt regulatory approaches like ISRs, which can help combat local environmental injustices and advance efforts to meet statewide air quality goals.

In California, local air districts have wide-ranging authority to advance environmental justice (EJ) by protecting public health in frontline communities—those impacted first and worst by poor air quality.

Not surprisingly, then, EJ organizations have made ISRs a top advocacy priority, particularly in the South Coast Air Basin. South Coast has acknowledged that "all six of the AB 617 communities [i.e., frontline communities] within [its] jurisdiction identified impacts from neighborhood truck traffic or diesel mobile sources as an air quality priority for their respective communities."[154] Environmental and EJ groups celebrated the passage of South Coast's Warehouse ISR in 2021, acknowledging that "the majority of [regulated] warehouses are not placed in areas where online shopping is done, meaning those who are closest to warehouses disproportionately suffer negative health impacts and are the most physically harmed by the pollution pumped out of diesel equipment and trucks" that the ISR aims to mitigate.[155] Environmental justice advocates representing communities living near rail yards that emit diesel particulate matter, NOx, and other pollutants were also a key force behind the adoption of South Coast's Freight Rail Yards ISR in August 2024.[156]

149 *Cal. Trucking Ass'n v. S. Coast Air Quality Mgmt. Dist.*, No. LA CV21-06341 JAK (MRWx), 2023 WL 9622548, at *24 (C.D. Cal. Dec. 14, 2023).
150 *Ibid.* (quoting H.R. Conf. Rep. 95-564, at 126 (1977), reprinted in 1977 U.S.C.C.A.N. 1502, 1507).
151 "[Local air] districts shall adopt and enforce rules and regulations to achieve and maintain the state and federal ambient air quality standards in all areas affected by emission sources under their jurisdiction," and "district rules and regulations may . . . provide for the prevention and abatement of air pollution episodes which . . . cause discomfort or health risks to, or damage to the property of, a significant number of persons or class of persons." Cal. Health & Safety Code § 40001.
152 Assem. Bill 617, 2017 Reg. Sess., Ch. 136, 2017 Cal. Stat., https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180AB617.
153 Cal. Health & Safety Code § 41508; U.S. EPA, *Criteria Air Pollutants* (Oct. 22, 2024), https://www.epa.gov/criteria-air-pollutants.
154 SCAQMD, *2024 WAIRE Program Annual Report*, *supra* note 50, at 44.
155 Press Release, Sierra Club, Earthjustice, People's Collective for Environmental Justice, and Partnership for Working Families, Southern California's Air District Votes to Electrify & Clean Up Air Pollution from Mega Warehouses (May 7, 2021), https://www.sierraclub.org/press-releases/2021/05/southern-california-s-air-district-votes-electrify-clean-air-pollution-mega.
156 Press Release, SCAQMD, South Coast AQMD Governing Board Adopts Rail Yards Indirect Source Rule, *supra* note 75; *see* SoCal Communities for AQMD Action, Railyards, *supra* note 76.

As the Warehouse and Freight Rail Yards ISRs show, these tools can help local air districts address harmful emissions from the goods movement industry—a task that is becoming more urgent in light of changes to that industry and to retail sales. As e-commerce continues to overtake retail, fueled by rapidly-advancing logistics technology, the health of communities that live near these goods movement nodes suffers. This dynamic was articulated in the San Diego County Air Pollution Control District's exploratory report on ISRs, which concluded that "[t]he widespread emergence of online purchasing and rapid delivery services is contributing to a strong demand for warehouse space near populated areas, heightening concerns over the potential impacts on air quality and public health [that] emphasize the need for actions to help minimize the public health impacts caused by freight operations."[157] ISRs can help address these concerns.

ISRs provide a locally-controlled and relatively durable approach to reducing important sources of emissions at a time when other methods of controlling mobile source emissions are under threat of federal rollback and are being challenged in litigation.

Finally, it is worth noting that ISRs provide a locally-controlled and relatively durable approach to reducing important sources of emissions at a time when other methods of controlling mobile source emissions are under threat of federal rollback and are being challenged in litigation. The success of ISRs is not dependent on the strength of federal vehicle emissions standards or even on the status of California's own emissions standards for vehicles. Unlike California's vehicle emissions standards, ISRs do not require U.S. EPA approval of a waiver of preemption under the Clean Air Act. Nor do they require incorporation by U.S. EPA into a SIP. ISRs may be pursued, enacted, and enforced regardless of the outcome of current controversies over federal and state emission standards.

D. Why are ISRs not more common? What are the main barriers to their adoption?

Given the flexibilities and benefits of ISRs, along with the undeniable need by many local air districts to do more to come into attainment of air quality standards, why aren't ISRs more prevalent? We can see at least a few reasons why ISRs have not yet gained widespread adoption: They remain relatively new tools; they can be resource-intensive to develop and implement; they can be costly to comply with; and, perhaps as a result of those characteristics, they remain politically controversial in some arenas.

First, ISRs are still relatively new and innovative regulatory approaches. Though authority for ISRs has long existed, it was not until 2005 that the San Joaquin Valley promulgated its pioneering Large Development Projects ISR, driven by extreme local air quality challenges and a dearth of strategies to meet those challenges. Litigation over the validity of that pathbreaking ISR played out in the courts through at least 2010, when the Ninth Circuit upheld the rule. It is perhaps not surprising that other air districts might have held off pursuing ISR strategies until seeing how that court challenge and rule implementation fared, taking lessons from San Joaquin Valley about what worked, what didn't, and why.

Second and relatedly, ISRs can be relatively resource-intensive to develop, implement, and enforce. Capacity needs include staff time, legal expertise, and, depending on an ISR's structure, often an ability to reliably model whether and how emissions from regulated sites would be reduced by rule implementation—and then to assess whether, in fact, emissions have been reduced. Modeling needs, in particular, can be intensive, especially if ISRs are structured to require whole-site emission reductions by some percentage as compared with baseline conditions (as the early ISR rules have been).

For example, San Joaquin Valley's Large Development Projects ISR requires new construction or expansive reconstruction projects to reduce NOx and PM10 emissions by 20% and 45%, respectively, during the construction stage and by 33.3% and 50% during the operation stage "when compared

157 SDCAPCD Report, *supra* note 13, at 3.

to unmitigated project baseline emissions" (i.e., the projected emissions that would occur if the developers took no environmentally-protective measures).[158] San Joaquin Valley employs a case-by-case approach to calculate each project's compliance obligation (the amount of NOx and PM10 emission reductions required by the ISR). San Joaquin Valley uses the California Emissions Estimator Model (CalEEMod) to *individually* calculate the projected baseline emissions of *each* new construction or expansive reconstruction project in the district—a practice that might be less feasible if attempted by mostly-urban districts with many more large development projects.[159] At least one large urban air district in California has concluded that a similar approach would not be feasible in its region because the approach is too resource-intensive, and would involve "individual project-by-project reviews of all types of new land development, which is well outside the scope of [the district's] current measure and programmatic capabilities."[160]

Similarly, the Bay Area Air Quality Management District (BAAQMD) has taken initial steps to assess a potential ISR for its district.[161] BAAQMD's stationary source committee predicted that it would require 3 full-time employees "plus significant legal support" working over three years to develop a rule similar to South Coast's Warehouse ISR, but did not include in its presentation how those predictions were made.[162] The committee also predicted "challenges related to existing and future indirect source efforts, including both legal and technical implementation challenges," but did not elaborate on what those challenges were in its presentation.[163]

A third reason why ISRs may not yet be common relates to costs of compliance. Depending on an ISR's structure and requirements, ISRs can require a relatively high cost of compliance for regulated industries, especially if the rule is likely to induce fleets to adopt ZEV vehicles, which have a high initial cost of acquisition—though, notably, the predicted costs of such rules are still typically outweighed by their societal cost savings. At least one local air district that has yet to adopt ISRs has emphasized the cost of compliance as a factor to consider before adoption. The San Diego County Air Pollution Control District (SDCAPCD) has researched, but not yet adopted, ISRs. The district released a report in May 2023 titled "Options and Considerations for Reducing Indirect Source Emissions at Warehouses, Distribution Centers, and Ports."[164] The district's report "evaluated potential strategies to control and reduce indirect source emissions from warehouses, distribution centers and ports," and elicited "public input and direction from the Governing Board."[165] The district acknowledged that, just like other California districts that have adopted ISRs, it "does not yet meet the federal or State ozone standards or the State fine PM [PM2.5] standard and must further reduce air pollution to reach attainment."[166]

SDCAPCD's staff concluded that adopting an ISR similar to South Coast's Warehouse ISR is "feasible and could be successfully implemented in San Diego County, providing much-needed emission reductions from the freight sector," but noted that "such a rule is predicted to be the costliest measure the District has ever enacted in terms of the compliance costs per pound of reduced emissions" in relative terms, given the District's history of passing highly cost-effective

158 SJVAPCD Rule 9510, § 6.0.
159 SJVAPCD, *Frequently Asked Questions Rule 9510 Indirect Source Review (ISR)*, *supra* note 27; *see* CAPCOA, *California Emissions Estimator Model*, *supra* note 27
160 SDCAPCD Report, *supra* note 13, at 9.
161 Bay Area Air Quality Mgmt. Dist., *Stationary Source Committee Update to the 2024-2025 Regulatory Agenda* (Sept. 11, 2024), https://www.baaqmd.gov/~/media/files/board-of-directors/2024/ssc_presentations_091124_op-pdf.pdf.
162 *Id.*
163 *Id.*
164 SDCAPCD Report, *supra* note 13.
165 *Id.* at 2.
166 *Ibid.*

rules like the 2020 NOx rules for small and medium boilers, and stationary engines, which were all achieved with cost-effectiveness values under $7 per pound of emissions reduced—an extremely low cost.[167] The staff report concluded that the technological feasibility of adopting a warehouse ISR in San Diego County is bolstered by the ever-increasing availability of heavy-duty zero-emission vehicles as well as San Diego County's relatively "smaller population of warehouses with at least 100,000 sq. ft. of indoor floor space (approximately 240 [in SDCAPCD] vs. 3,300 in South Coast)."[168] Relative to some of SDCAPCD's other NOx-related rulemakings, the staff report predicted that the potential warehouse ISR will have significantly higher $-per-pound cost-effectiveness values than those rules, with a cost-effectiveness value of $62 to $116 per pound of NOx reduced compared to the <$7 per pound cost-effectiveness achieved by those 2020 NOx rules.[169]

Most fundamentally, we suspect that the main barriers to adopting ISRs are political, fed by a combination of opposition to new regulation by influential industries; regulatory capacity constraints and risk aversion; and continuing questions about whether ISRs are necessary in light of other approaches to controlling emissions.

That said, the staff report still found the potential warehouse ISR to be cost-effective in absolute terms, because "the resulting public health benefits would be expected to outweigh the potential costs of compliance by a ratio of up to 2.5:1, like South Coast's rule," and avoid as many as "16 premature deaths, 317 asthma attacks, and 1,092 lost workdays" over a ten-year period.[170] The staff report also noted that the potential warehouse ISR would have a cost-effectiveness value "comparable" to those of some "mobile source regulations recently adopted by CARB" as well as those of some of SDCAPCD's own incentive funding programs that subsidize "voluntary adoptions of zero-emission equipment" with cost-effectiveness values reaching up to $261 per pound of NOx.[171] The staff report emphasized that the costs of rule development and administration could be recovered through imposing fees on regulated warehouses, and would include a one-time rule development cost of $250,000, a one-time web portal development cost of $200,000, and an annual web portal maintenance cost of $25,000 borne by SDCAPCD; the cost of two additional staff members to administer the program; and annual reporting obligations costing regulated warehouses approximately $1,000 per year.

Lastly, and most fundamentally, we suspect that the main barriers to adopting ISRs are political. Political difficulties are fed by a combination of opposition to new regulation by influential industries; regulatory capacity constraints and risk aversion; and continuing questions about whether ISRs are necessary in light of other approaches to controlling emissions. Some of these dynamics are illustrated by San Diego's consideration of how to reduce emissions from its port. SDCAPCD has expressed a preference for decreasing indirect source emissions at the Port of San Diego via a voluntary memorandum of understanding (MOU) in which the Port agrees to implement "emissions reduction, facilitative, and health-protective mitigation measures," instead of adopting a Ports ISR like that currently being developed by South Coast.[172] In support of this preference, SDCAPCD's staff has noted the litigation risks and resource burdens that would accompany a port ISR.[173]

We expect, however, that political will for more robust use of ISRs is likely to grow significantly in the coming months and years, and for good reason: ISRs are more well developed than ever, and alternatives to ISRs are becoming less certain. Existing ISR implementation is creating a

167 *Id.* at 11, 13.
168 *Id.* at 12.
169 *Id.* at 14.
170 *Id.* at 12–13.
171 *Id.* at 14–15; San Diego County Air Pollution Control Dist., *Clean Air For All: Moyer/FARMER/CAPP Grants*, https://www.sdapcd.org/content/sdapcd/grants/moyer.html.
172 SDCAPCD Report, *supra* note 13, at 19.
173 *Id.* at 18–19.

path for other air districts to walk and is showing that these rules are viable and can be effective. Recent case law has put ISRs on very strong legal footing, reducing litigation risks for districts that adopt such rules. Simultaneously, alternative approaches to reducing these targeted emissions are looking less effective and reliable, as both mobile source emissions standards and voluntary approaches come under fire or underperform.[174] For these reasons, advocates and community members are continuing to build the case for ISRs in the many communities where new, more robust regulation is needed and warranted to meet federal and state air quality mandates.

IV. Recommendations

We conclude that ISRs are legally sound tools that air regulators could adopt widely and swiftly in order to help address mobile sources of pollution that might otherwise be difficult to abate. ISRs have the potential to empower air districts to better comply with the federal Clean Air Act and related state statutes, meet ambitious emission reduction targets, and pursue environmental justice by foregrounding the needs of directly affected communities living near stationary sources of air pollution that cause significant indirect emissions. With federal and California emission standards for cars, trucks, and other mobile sources under current threat of rollback, these stationary source tools may become even more important.

Recent case law has put ISRs on very strong legal footing, reducing litigation risks for districts that adopt such rules. Simultaneously, alternative approaches to reducing these targeted emissions are looking less effective and reliable, as both mobile source emissions standards and voluntary approaches come under fire or underperform.

In order to advance the adoption of ISRs to better regulate indirect source emissions caused by stationary sources, we make the following recommendations.

- Most fundamentally, **air districts** inside and outside of California should consider adopting ISR tools more widely than they have done to date. These tools can be especially useful for addressing air pollution hotspots that occur because of stationary sources that attract significant mobile source activity, such as warehouses, transit nodes, ports, major employment centers, and other major traffic-inducing developments. Notably, such air pollution hotspots occur in districts across the country regardless of air quality attainment status; thus, ISRs can be useful in both attainment and nonattainment areas. ISRs can also be effective in controlling pollution in both the construction and operational phases of stationary source projects, and can be applied to both existing and new sources. They may be adopted at a variety of jurisdictional levels: by cities, local air districts, and states.

- Because ISRs are a relatively underutilized regulatory tool, air districts often will not yet have much in-house expertise and experience in their development and implementation. **State environmental agencies** and others should support air district capacity to develop, implement, and enforce these rules. State agencies could, for example, provide direct monetary, technical, or legal resources for rule development; create model rules to serve as templates across multiple air districts; and develop and make available to local air districts the technical modeling tools needed to assess compliance with ISRs. Some of these forms of support could also, or instead, be

174 For example, the prolonged delay in development of South Coast's Ports ISR is attributable, in part, to failed attempts to negotiate an MOU with the Ports of L.A. and Long Beach, which may caution against SDCAPCD pursuing the same strategy with the Port of San Diego. Reviewing the saga of the South Coast Ports ISR, the L.A. Times Editorial Board has criticized South Coast's Governing Board for having "chosen to delay and waste time in fruitless talks rather than impose regulations." L.A. Times Editorial Board, *supra* note 83.

provided by **expert groups, nonprofits, or academic institutions**. For example, San Joaquin Valley relied heavily on the California Emissions Estimator Model (CalEEMod) in developing and implementing its ISR. That model allows the district to easily and reliably calculate the projected baseline emissions of each new construction or reconstruction project. State environmental agencies and universities, especially public universities, could help develop similar modeling tools for other states.

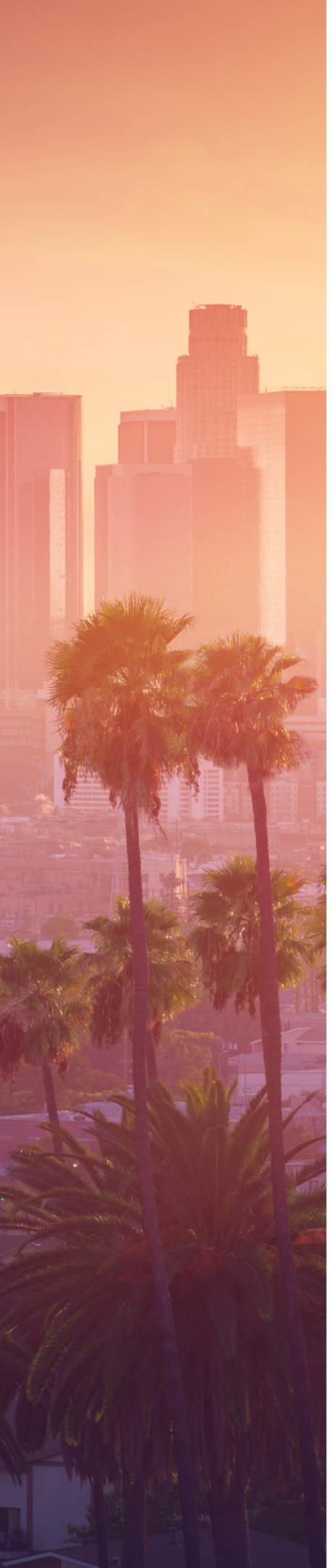
ISRs are effective and well-tested regulatory tools that deserve to be used more often and more robustly by local air districts and state environmental agencies across the country.

- **State legislatures and local governing bodies** can weigh in to advance the adoption of ISRs to help meet air quality goals. The bills currently under consideration in the New York and New Jersey legislatures, as well as in the New York City Council, show how political leaders can encourage, or require, environmental regulators to do more with the set of regulatory tools addressed in this paper. State legislatures should also consider whether it would be useful to clarify aspects of state law, where that law may be unclear with respect to the authority for ISRs. For example, in California there is some question about whether the state's Air Resources Board may adopt a statewide ISR, and under what circumstances. The California legislature could easily resolve this question in favor of statewide authority, as proposed in AB 914 (2025), which would ease the burden on local air districts (but which might, of course, raise questions of local control).

- **Local communities, advocates, and other stakeholders** can educate community members about ISRs and be vocal in encouraging their adoption. The political will to adopt such rules has not often been robust; that is likely one reason why ISRs have not been more widely embraced. As noted above, however, ISRs are now well established as effective regulatory tools, and at the same time alternatives to ISRs seem potentially less durable than ever. These dynamics could lead to a more widespread use of ISRs due to being better understood, especially in districts with significant hotspot pollution caused by mobile sources.

V. Conclusion

ISRs are effective and well-tested regulatory tools that deserve to be used more often and more robustly by local air districts and state environmental agencies across the country. ISRs can help state and local air regulators meet clean air and public health goals and mandates, especially in areas where air quality is impeded by under-controlled mobile sources of local air pollution, such as in neighborhoods close to warehouses, ports, and other mega facilities with significant mobile source activity.



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