

CERTIFIED FOR PUBLICATION

IN THE COURT OF APPEAL OF THE STATE OF CALIFORNIA

FIRST APPELLATE DISTRICT

DIVISION FOUR

OUR CHILDREN’S EARTH
FOUNDATION,

Petitioner and Appellant,

v.

CALIFORNIA AIR RESOURCES
BOARD,

Respondent,

CLIMATE ACTION RESERVE et al.,

Intervenors and Respondents.

A138830

(San Francisco City & County
Super. Ct. No. CGC-12-519554)

I.

INTRODUCTION

The California Air Resources Board (the Board) is charged with implementing the California Global Warming Solutions Act of 2006. (Health & Saf. Code, §§ 38500 et seq. (the 2006 Act).)¹ The Board’s mandate includes adopting rules and regulations to achieve the maximum “technologically feasible and cost effective” reductions in the emission of greenhouse gas (sometimes “GHG”) from sources or categories of sources subject to regulation under the terms of the 2006 Act. (§ 38560.)

In this case, appellant challenges the Board’s regulations implementing a market-based compliance mechanism for achieving reductions in GHG emissions, which is referred to by the parties as the “Cap-and-Trade” program. Pursuant to a petition for writ

¹ Statutory references are to the Health and Safety Code unless otherwise stated.

of mandate, appellant alleged that one component of this program which affords offset credits for voluntary reductions in GHG emissions violates the 2006 Act by failing to ensure that these credited reductions are “in addition to” any GHG emission reduction that is otherwise required by law or that would otherwise occur. (§ 38562, subd. (d) (§ 38562(d)).) The trial court rejected this claim and denied the petition. Appellant contends on appeal, as it did in the trial court, that the Board exceeded its power under the 2006 Act by implementing regulations that violate this “additionality” requirement. We affirm.

II.

THE 2006 ACT

The 2006 Act is supported by legislative findings that global warming poses a “serious threat” to the “economic well-being, public health, natural resources, and the environment of California,” and that global warming will have “detrimental effects on some of California’s largest industries.” (§ 38501, subds. (a), (b).) The Legislature also found that California has long been a leader with respect to energy conservation and environmental protection, and that programs established under the 2006 Act would “continue this tradition of environmental leadership by placing California at the forefront of national and international efforts to reduce emissions of greenhouse gases.” (§ 38501, subd. (c).)

The 2006 Act designates the Board as “the state agency charged with monitoring and regulating sources of emissions of greenhouse gases that cause global warming in order to reduce emissions of greenhouse gases.” (§ 38510.) In making this designation, the Legislature codified its intention that the Board “design emissions reduction measures to meet the statewide emissions limits for greenhouse gases . . . in a manner that minimizes costs and maximizes benefits for California’s economy, improves and modernizes California’s energy infrastructure and maintains electric system reliability, maximizes additional environmental and economic co-benefits for California, and complements the state’s efforts to improve air quality.” (§ 38501, subd. (h).)

The 2006 Act subjects the Board to several directives. Among other things, the Board is required to: (1) adopt regulations for statewide reporting and monitoring of GHG emissions (§ 38530); (2) establish a statewide GHG emissions limit to be achieved by 2020 that is equivalent to the 1990 state GHG emissions level (§ 38550); (3) adopt rules and regulations to “achieve the maximum technologically feasible and cost-effective greenhouse gas reductions . . . subject to the criteria and schedules” set forth in the Act (§ 38560); and (4) adopt and implement a list of discrete early action GHG emission reduction measures (§ 38560.5).

The present case pertains to the legislative directive that the Board adopt rules and regulations to “achieve the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions” (§ 38560.) To comply with that directive, the Board was required to “adopt greenhouse gas emission limits and emission reductions measures by regulation . . . in furtherance of achieving the statewide greenhouse gas emissions limit, to become operative beginning on January 1, 2012.” (§ 38562, subd. (a).)

In crafting these regulations, the Board was required to follow nine statutory guidelines, “to the extent feasible and in furtherance of achieving the statewide greenhouse gas emissions limit.” (§ 38562, subd. (b).) These guidelines directed the Board to attempt to minimize costs, maximize the total benefits to California, encourage early action to reduce GHG emissions, avoid disproportionate impact on low-income communities, award appropriate credit for early voluntary reductions, complement existing federal and state standards, consider cost-effectiveness, consider overall societal benefits, minimize administrative burdens of implementation and compliance, minimize leakage (*id.* at subds. (b)(1)-(b)(8)), and “consider the significance of the contribution of each source or category of sources to statewide emissions of greenhouse gases” (*id.* at subd. (b)(9)).

The Legislature expressly authorized the Board to adopt regulations which establish market-based compliance mechanisms “in furtherance of achieving the statewide [GHG] emissions limit.” (§ 38562, subd. (c); see also § 38570, subd. (a) [the

Board “may include in the regulations adopted pursuant to Section 38562 the use of market-based compliance mechanisms to comply with the regulations”].) The Act defines a market-based compliance mechanism as “either of the following: (1) A system of market-based declining annual aggregate emissions limitations for sources or categories of sources that emit greenhouse gases. [¶] (2) Greenhouse gas emissions exchanges, banking, credits, and other transactions, governed by rules and protocols established by the state board, that result in the same greenhouse gas emission reduction, over the same time period, as direct compliance with a greenhouse gas emission limit or emission reduction measure adopted by the state board pursuant to this division.” (§ 38505, subd. (k).)

The Act requires that every Board regulation adopting GHG emission limits and emission measures “shall ensure” that the GHG “emission reductions achieved are real, permanent, quantifiable, verifiable, and enforceable by the state board.” (§ 38562, subd. (d)(1).) Regulations adopting market-based compliance mechanisms are subject to a further requirement that the “reduction is in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur.” (§ 38562, subd. (d)(2) (section 38562(d)(2)).) This section 38562(d)(2) “additionality” requirement is the subject of this appeal.

III.

STATEMENT OF FACTS

A. The Cap-and-Trade Program

In January 2012, the Board implemented the “California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms” pursuant to its authority under the 2006 Act. (Cal. Code Regs., tit. 17 [17 CCR] §§ 95801-96022.)² The purpose of this

² This “Cap-and-Trade” program was one of 73 measures identified in a “Scoping Plan” the Board prepared and approved in December 2008 pursuant to another legislative directive in the 2006 Act. (§ 38561.) “The process for developing and approving the scoping plan in compliance with the statutory mandate was extensive and rigorous.” (*Association of Irrigated Residents v. State Air Resources Bd.* (2012) 206 Cal.App.4th 1487, 1491 (*Irrigated Residents*).)

“Cap-and-Trade” program regulation is “to reduce emissions of greenhouse gases” from sources covered by the program “by applying an aggregate greenhouse gas allowance budget on covered entities and providing a trading mechanism for compliance instruments.” (17 CCR § 95801.) Entities covered by the program are from a broad spectrum of industries, including electricity, natural gas and fuel suppliers, each of whom has previously reported GHG emissions that exceed a threshold established by the Board for that industry. (*Id.* at §§ 95811-95812.)³

The program imposes a “cap” on the aggregate GHG emissions these covered entities may emit during the annual compliance period. (17 CCR §§ 95801, 95802, subd. (a)(53).) The Board enforces the cap, which is lowered over time, by issuing a limited number of compliance instruments referred to as “allowances,” the total value of which is equal to the amount of the cap. (*Id.* at § 95820.) Each allowance represents a limited authorization to emit up to one metric ton of carbon dioxide equivalent of greenhouse gases (CO_{2e}), subject to stated restrictions. (*Ibid.*) Covered entities demonstrate compliance with the program by the timely surrender of allowances which correspond to that entity’s compliance obligation during the relevant compliance period which is calculated pursuant to a formula set forth in the program regulation. (*Id.* at §§ 95854-95856.) Subject to restrictions and limitations, allowances are tradable, which means that individual participants can buy, bank or sell allowances which are used by the covered entities to satisfy their compliance obligations. (*Id.* at §§ 95920-95923, 95856.)

A covered entity can also use offsets to meet a percentage of its compliance obligation under the program. (17 CCR § 95820, subd. (b); see generally *id.* at

³ As explained in one of many reports generated during the development of the Cap-and-Trade regulation, the Board anticipated that this program would further the purpose of the 2006 Act by establishing a broad reaching, yet cost-effective, mechanism for achieving GHG emission reductions: “When implemented, California’s cap-and-trade program would extend to industrial and other sources accounting for about 85% of the state’s GHG emissions. A touted attraction of cap and trade is its ability to achieve GHG reductions at lower cost than other policy approaches. This means that whatever the overall impact of [the 2006 Act] on state income, the end result will be greater income than would be the case without cap and trade.”

§§ 95970-97990.) An offset is a voluntary GHG emissions reduction from a source that is not directly covered by the Cap-and-Trade program which is used by a covered entity to comply with the program’s GHG emissions cap. The Board included offsets in the Cap-and-Trade program in order to provide “compliance flexibility” and to “support the development of innovative projects and technologies from sources outside capped sectors that can play a key role in reducing emissions both inside and outside California.” Each covered entity may use offset credits to satisfy up to eight percent of its compliance obligation. (*Id.* at § 95854.)

The Board established extensive requirements for projects to qualify as offset credits under the Cap-and-Trade program.⁴ (17 CCR § 95970 et seq.) Notably, the program incorporates the requirements for market-based mechanisms set forth in section 38562(d) of the 2006 Act; an offset must be “real, additional, quantifiable, permanent, verifiable, and enforceable.” (17 CCR § 95970, subds. (a)(1), (b).) To implement the additionality requirement of the Cap-and-Trade program, the Board adopted the following definitions:

“ ‘Additional’ means, in the context of offset credits, greenhouse gas emission reductions or removals that exceed any greenhouse gas reduction or removals otherwise required by law, regulation or legally binding mandate, and that exceed any greenhouse gas reductions or removals that would otherwise occur in a conservative business-as-usual scenerio.” (17 CCR § 95802, subd. (a)(4).)

“ ‘Conservative’ means, in the context of offsets, utilizing project baseline assumptions, emission factors, and methodologies that are more likely than not to understate net GHG reductions or GHG removal enhancements for an offset project to address uncertainties affecting the calculation or measurement of GHG reductions or GHG removal enhancements.” (17 CCR § 95802, subd. (a)(77).)

⁴ It also adopted elaborate procedures for monitoring, reporting and verifying GHG emission reductions from projects that qualify as offsets under the program. (See 17 CCR §§ 95976-95988.)

“ ‘Business-as-Usual Scenario’ means the set of conditions reasonably expected to occur within the offset project boundary in the absence of the financial incentives provided by offset credits, taking into account all current laws and regulations, as well as current economic and technological trends.” (17 CCR § 95802, subd. (a)(43).)

Another substantive eligibility requirement imposed by the Cap-and-Trade program regulation requires that a qualifying offset credit must result from the use of a “Compliance Offset Protocol” that meets a separate set of program requirements, and that has been formally adopted by the Board. This adoption process must comport to the procedures set forth in the regulation which require public notice and the opportunity for public comment. (17 CCR §§ 95970, subds. (a)(2), (b), 95971.)

Consistent with the Legislature’s directive to recognize early voluntary emission reductions, the Cap-and-Trade program regulation also includes a procedure for early action projects to qualify as offset credits under the program. (17 CCR § 95990.) The early action offset credit provision of the regulation is itself a detailed program which establishes the requirements for (1) an early action offset program to qualify for and register under the Cap-and-Trade program, and (2) an early action offset project to qualify as an offset credit under the program. (*Ibid.*)

Every layer of regulation applicable to offset credits confirms and incorporates the requirement that a GHG emission reduction entitled to a credit must be additional. For example, a provision applicable to all offset projects requires that the “activities that result in GHG reductions and GHG removal enhancements are not required by law, regulation, or any legally binding mandate applicable in the offset project’s jurisdiction, and would not otherwise occur in a conservative business-as-usual scenario.” (17 CCR § 95973, subd. (a)(2)(A).) Furthermore, a Compliance Offset Protocol cannot be approved by the Board unless it “[e]stablish[es] the eligibility and additionality of projects using standard criteria, and quantif[ies] GHG reductions and GHG removal enhancements using standardized baseline assumptions, emission factors and monitoring methods.” (*Id.* at § 95972, subd. (a)(9).) Furthermore, a specific project may qualify for an offset credit only by meeting both the additionality requirements set forth in the

regulation and any additionality requirements in the applicable Compliance Offset Protocol. (*Id.* at § 95973, subd. (a)(2).)

B. The Compliance Offset Protocols

As noted above, the Cap-and-Trade program regulation requires that an offset credit result from the use of a “Compliance Offset Protocol” that has been approved by the Board. (17 CCR § 95970, subds. (a)(2), (b), 95971.) As the Board explains in its appellate brief, the function of an offset protocol is to establish “a set of procedures and requirements to qualify and quantify GHG destruction, ongoing GHG reductions or GHG removal enhancements achieved by an offset project.” One of the qualification requirements addressed by the Board protocols is that the GHG emissions reduction has to be “additional.”

The proper way to demonstrate additionality is a controversial subject. (Schneider, *Is the CDM Fulfilling Its Environmental and Sustainable Development Objectives? An Evaluation of the CDM and Options for Improvement*, Okeo-Institut e.V. (Nov. 5, 2007) at p. 7.) There are three basic approaches for addressing this challenge when establishing an additionality test: a project-specific approach; a standards-based approach; or a hybrid approach. (Broekhoff, *Expanding Global Emissions Trading: Prospects for Standardized Carbon Offset Crediting*, World Resources Institute (Nov. 15, 2007) at pp. 4-7.)

The project-specific approach requires a verifier to focus on the project’s “unique location and circumstances” in order to make a determination about the project operator’s intention as to whether the project would have been undertaken absent the financial benefit associated with the offset credit. (Broekhoff, *supra*, at p. 5.) The standards-based approach employs a protocol which establishes objective criteria for evaluating whether a specific type of project satisfies the additionality requirement. (*Id.* at pp. 6-9.) The “essence of ‘standardized’ offset crediting is to minimize the subjective judgment required in evaluating whether a project should receive a credit for emission reductions, and how much credit it should receive.” (*Id.* at p. 3.) The third, hybrid approach incorporates project-specific and standardized requirements. (*Id.* at p. 9.)

A well-known, but criticized, example of a project-specific approach is the Clean Development Mechanism (CDM), an offset mechanism used in a global carbon offset market program called the Kyoto Protocol which allows the crediting of emission reductions from GHG abatement projects in developing countries. (Broekhoff, *supra*, at pp. 2, 7-10; Schneider, *supra*, at pp. 5-6.) Critical studies of the CDM highlight problems inherent in the project-specific approach, which include its: (1) dependence on the subjective judgment of the regulator; (2) creation of a high degree of uncertainty for project developers; (3) reliance on the integrity and consistency of the regulator's judgment; and (4) being "prone to gaming" by project developers wanting to prove that the project would not have occurred if not for the incentive of the offset program. (*Ibid.*)

By contrast to the CDM, protocols developed by the Climate Action Reserve (Reserve) employ a standards-based approach for ensuring additionality. The Reserve is a national nonprofit organization that (1) develops standards for evaluating, verifying and monitoring GHG emission inventories and reduction projects in North America; (2) issues offset credits for those projects; and (3) tracks offset credits over time "in a transparent, publicly-accessible system." A primary goal of the Reserve is to establish conservative GHG accounting which will ensure that GHG emission reductions are "real, permanent, additional, verifiable, and enforceable by contract." In formulating its standards-based protocols, the Reserve identifies types of emission reduction projects that are both subject to quantification and appropriate for assessment pursuant to performance-based additionality tests.⁵

⁵ The Reserve traces its roots to the California Climate Action Registry, a nonprofit public benefit corporation that was established by the Legislature in 2000 in order to provide GHG emissions accounting and reporting for voluntary early action efforts to reduce GHG emissions. The Registry created protocols for GHG emissions accounting and established a public registry database for emissions reporting. In 2009, the Registry changed its name to the Climate Action Reserve, and changed its focus to developing standardized protocols for quantifying GHG emissions reductions and registering those reductions for activities sectors across the economy.

In 2007, the Board adopted Reserve protocols as voluntary early action GHG emission reduction measures under section 38560.5 of the 2006 Act. Later, the Board used Reserve protocols as models for its own protocols, although the administrative record shows that the Board engaged in an intensive independent process to develop the protocols that were ultimately approved under the Cap-and-Trade program regulation.

At the time this case was filed, the Board had approved four Compliance Offset Protocols which were incorporated into the regulation. (17 CCR § 95975, subd. (e).) Each protocol represents a class of projects from a distinct economic sector outside the coverage of the program: (1) Livestock Projects; (2) Ozone Depleting Substance (ODS) Projects; (3) Urban Forest Projects; and (4) U.S. Forest Projects. The Board protocols are technically hybrids as they contain some project-specific criteria, but all are highly standardized.

The Livestock Projects Protocol encourages the reduction of emissions from methane, which has 21 times the global warming potential of carbon dioxide. This protocol authorizes offset credits for projects that reduce emissions of this form of GHG through the installation of anaerobic digesters to treat manure at dairy and hog farms. To ensure additionality, this protocol imposes a project-specific regulatory requirement that the reduction must not be otherwise required by law or regulation, and also establishes a performance standard applicable to all manure management projects. The performance standard sets a “threshold that is significantly better than average, business-as-usual” GHG emissions for this category of activity. Projects that exceed what would happen under this “business-as-usual scenario” are deemed to generate additional GHG reductions. In approving this protocol, the Board found, among other things, that “installing a bio-gas control system is above and beyond common practice and therefore inst[all]ation of a bio-gas control system meets the performance standard.”

The ODS Projects Protocol is directed at a group of chemicals that destroy the stratospheric ozone layer and is based on a 2010 version of the Reserve protocol for this project area. Historically, these chemicals were commonly used in “a wide variety of applications including refrigerants, foam blowing agents, solvents, and fire suppressants.”

This protocol authorizes offset credits for the destruction of ODS removed from older equipment and appliances that continue to generate these potent GHGs. However, ODS destruction by the United States government is excluded from this program based on the Board's finding that the "destruction of ODS by the U.S. government is common practice and considered business-as-usual, and therefore ineligible for credit under this protocol."

The Urban Forest Projects Protocol accords offset credits for projects that permanently increase carbon storage through the adoption of a tree planting and maintenance program undertaken by a municipality, educational facility or utility. This protocol is based on a 2010 Reserve protocol. In addition to incorporating the additionality requirements of the Cap-and-Trade program regulation, this protocol requires that the offset project must "demonstrate a priori that it will exceed the business-as-usual threshold" for the project area where the offset project takes place. Those thresholds are "measured in terms of net tree gain," pursuant to formulas outlined in the protocol.

The U.S. Forest Projects Protocol is designed to maintain or increase sequestration of carbon dioxide on forestland. This protocol, which is based on a 2010 version of the Reserve protocol covering the project area, authorizes offset credits for three types of projects: (1) reforestation projects that restore tree cover on land that is not at optimal stockage levels; (2) improved forest management projects that maintain or increase carbon stocks on forested land; and (3) avoided conversion projects that prevent the conversion of forestland to a non-forest use. The standards used in this protocol are designed to ensure that offset credits may only be generated by "projects that yield surplus GHG emission reductions or removal enhancements that exceed any GHG reductions or removals otherwise required by law or regulation, or any GHG reduction or removal that would otherwise occur in a conservative Business-As-Usual Scenario."

The Cap-and-Trade program regulation also incorporates several Reserve protocols into the early action offset credit provision. (17 CCR § 95990.) That provision establishes a mechanism pursuant to which early voluntary emission production projects

that registered with the Reserve, and, therefore, complied with Reserve protocols, can obtain early action offset credits under the Cap-and-Trade program. (*Ibid.*)

C. The Present Action

1. The Petition

Appellant describes itself as a “non-profit public benefit corporation” with a national membership dedicated to protecting the public from the impacts of pollution and other environmental hazards and improving environmental quality by, among other things, participating in environmental decisionmaking and enforcing environmental laws. In March 2012, appellant and another organization called Citizens Climate Lobby initiated this action by filing a petition for writ of mandate and complaint for declaratory and injunctive relief against the Board.⁶

Pursuant to a first amended petition, the petitioners sought to invalidate the Board’s “Compliance Offset Protocols” and “Early Action Offset Credit program” on the ground that these provisions violate the additionality requirement of the 2006 Act. Petitioners acknowledged that the Legislature gave the Board the option of using a market-based compliance mechanism. However, they alleged that the 2006 Act also establishes specific mandatory criteria to ensure the “integrity” of any such mechanism. According to the petition, these integrity standards mandate that the Board “shall ensure” that regulations achieve GHG emission reductions which are “real, permanent, quantifiable, verifiable, and enforceable,” and which are “in addition” to any reduction otherwise required by law or “that otherwise would occur.” (Quoting § 38652, subs. (d)(1), (d)(2).)

Petitioners alleged that the Compliance Offset Protocols incorporate a flawed approach for evaluating additionality which fails to satisfy the integrity standards imposed by the 2006 Act. According to the petition, each protocol is based on a “Performance Standard” which purports to ensure additionality but inherently fails to do so for at least two reasons. First, the standard attempts to exclude activities that otherwise

⁶ Citizens Climate Lobby is not a party on appeal.

would occur by setting a threshold for GHG emission reductions for a specified activity at a level that is only “significantly better than average,” and/or “beyond ‘common practice’” for that specified activity. According to petitioners, this approach is inherently defective because it necessarily includes activities which otherwise would occur.

Petitioners’ second disagreement with the Board’s Performance Standard is that it allegedly incorporates a “profitability” factor which assumes that a project activity satisfies the additionality requirement if it would be profitable only with the financial incentive of the offset payment. Petitioners alleged that this standard assumption is subjective and uncertain and that it is nothing more than a “guess about the future.”

For these reasons, the petition alleged that the Board’s Performance Standard will flood the program with non-additional offsets: “Since non-additional offsets, i.e., activities ‘that otherwise would occur,’ will always be the least expensive (and therefore be preferred in an offset market by offset purchasers), no truly additional offsets will be financially viable until all non-additional activities have been exhausted. Since the use of the ‘significantly above average,’ ‘beyond common practice’ and profitability analysis’ tests will flood the system with non-additional offsets, use of these tests are likely to result in a large proportion of non-additional offset projects.”

The petition also challenged the early action offset credit provision of the Cap-and-Trade program. Petitioners alleged that this provision incorporates Reserve protocols that fail to ensure additionality by allowing “offsets to be generated from entire classes of projects, even though projects within those classes are already being undertaken and will be undertaken without the incentive provided by offset payments.”

According to the petition, “[t]he central contention of this action is that the challenged offset provisions exceed [the Board’s] authority and are in conflict with the [2006 Act’s] Integrity Standards.” Incorporating the factual allegations we have summarized above, petitioners sought to invalidate Board regulations implementing the Compliance Offset Protocols (17 CCR § 95975, subd. (e)) and the early action offset credit program (17 CCR § 95990), and any offset credits that had been issued by the Board pursuant to these allegedly unlawful provisions.

2. The Superior Court's Decision

On December 7, 2012, the trial court held a hearing on the petition for writ of mandate. In addition to the petitioners and the Board, the court heard from the Reserve, who intervened as a respondent in the action. The Environmental Defense Fund also appeared as an intervener. As a co-sponsor of the 2006 Act and an active participant in the administrative proceedings pertaining to the Board's implementation of the Act, the Environmental Defense Fund expressed its strong support for the Board's "decision to adopt an environmentally rigorous offset program as part of its cap-and-trade program."

Several "business interven[e]rs" also appeared to protect their interests by defending the offset provisions of the Cap-and-Trade program. Some business interveners were covered entities interested in ensuring there are enough compliance instruments to cover the GHG emissions inherent in the services they provide to California customers. Others were offset providers and developers who had invested resources in offset projects designed to comply with the Compliance Offset Protocols. The Nature Conservancy also filed an amicus curie brief in support of the Compliance Offset Protocols, especially the U.S. Forest Projects Protocol which it helped develop.⁷

After considering all of the pleadings, evidence and arguments, the court denied the petition for writ of mandate. In its 34-page statement of decision, the court framed the issue as follows: "Petitioners focus their challenge solely on Respondent's use of a standards-based approach to determine additionality. This Court must determine whether the Legislature foreclosed Respondent's use of these mechanisms because they permit non-additional reductions to receive credit. Petitioners demand a perfect additionality determination that precisely delinates between additional and non-additional reductions. Respondent contends that additionality is inherently uncertain and it is impossible to design a perfect additionality mechanism. Central to this case is interpreting [section

⁷ The intervener-respondents and The Nature Conservancy have also filed briefs in this court. Although we do not separately address those briefs, we have considered the arguments presented therein.

38562(d)(2)] to determine if it forecloses Respondent from using standardized additionality mechanisms.” (Fn. omitted.)

To resolve this issue, the court conducted a two-part analysis applying different standards of review. First, the court employed a *de novo* standard to determine whether the Legislature delegated to the Board the “authority to use a standards-based approach to determine additionality.” Reasoning that the “best source” of legislative intent was the statutory language itself, the court found that the 2006 Act conferred to the Board “vast discretion to promulgate any type of GHG reduction measure.” The court also found that discretion included the authority to adopt a “standards-based” approach which, in this case, took the form of the Compliance Offset Protocols. In the second part of its analysis, the court considered whether the Board’s offset protocols were arbitrary and capricious in that they failed to achieve the purpose of the 2006 Act. The court considered each of the challenged protocols and concluded all were reasonably necessary to effectuate the purpose of the 2006 Act, and that promulgating them was neither arbitrary nor capricious.

After additional briefing and argument, the court entered judgment against petitioners on March 25, 2013. This timely appeal followed.

III.

DISCUSSION

As noted, appellant contends the Compliance Offset Protocols and the early action offset provision of the Cap-and-Trade program regulation are invalid because they violate section 38562(d)(2) of the 2006 Act by failing to ensure that “each and every reduction that generates an offset will be in addition to ‘any’ greenhouse gas emission reduction ‘that otherwise would occur’[.]”

A. Standard of Review

“ ‘An appellate court’s review of the administrative record for legal error and substantial evidence in . . . mandamus cases, is the same as the trial court’s: The appellate court reviews the agency’s action, not the trial court’s decision; in that sense appellate judicial review . . . is *de novo*.’ [Citation.]” (*Irritated Residents, supra*, 206 Cal.App.4th at p. 1494.)

“The standard of review governing a challenge to the validity of administrative regulations is found in Government Code section 11342.2, which states: ‘Whenever by the express or implied terms of any statute a state agency has authority to adopt regulations to implement, interpret, make specific or otherwise carry out the provisions of the statute, no regulation adopted is valid or effective unless [1] consistent and not in conflict with the statute and [2] reasonably necessary to effectuate the purpose of the statute.’ [Citation.]” (*Watkins v. County of Alameda* (2009) 177 Cal.App.4th 320, 335 (*Watkins*); see also *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 108, and authority cited therein.)

Under the first prong of this standard, courts independently review whether a regulation is consistent with the statute authorizing its adoption. (*Western States Petroleum Assn. v. Board of Equalization* (2013) 57 Cal.4th 401, 415 (*Western States*)). As our Supreme Court has explained, “when an implementing regulation is challenged on the ground that it is ‘in conflict with the statute’ [citation] or does not ‘lay within the lawmaking authority delegated by the Legislature’ [citation], the issue of statutory construction is a question of law on which a court exercises independent judgment. [Citation.]” (*Ibid.*)

“In determining whether an agency has incorrectly interpreted the statute it purports to implement, a court gives weight to the agency’s construction. [Citation.]” (*Western States, supra*, 57 Cal.4th at p. 415.) “How much weight to accord an agency’s construction is ‘situational,’ and greater weight may be appropriate when an agency has a ‘“comparative interpretive advantage over the courts,” ’ as when ‘“the legal text to be interpreted is technical, obscure, complex, open-ended, or entwined with issues of fact, policy, and discretion.” ’ [Citation.] Moreover, a court may find that ‘the Legislature has delegated the task of interpreting or elaborating on a statute to an administrative agency,’ for example, when the Legislature ‘employs open-ended statutory language that an agency is authorized to apply or “when an issue of interpretation is heavily freighted with policy choices which the agency is empowered to make.” ’ [Citations.] In other words, the delegation of legislative authority to an administrative agency sometimes ‘includes

the power to elaborate the meaning of key statutory terms.’ [Citation.] Nevertheless, the proper interpretation of a statute is ultimately the court’s responsibility.” (*American Coatings Assn. v. South Coast Air Quality Management Dist.* (2012) 54 Cal.4th 446, 461-462 (*American Coatings*)).

Under the second prong of this standard of review, courts apply a “much more deferential” test to determine whether a challenged agency action is reasonably necessary to effectuate statutory purpose by inquiring whether that action “was ‘arbitrary, capricious, or without reasonable or rational basis.’ [Citation.]” (*Watkins, supra*, 177 Cal.App.4th at p. 335.) “Because agencies granted . . . substantive rulemaking power are truly ‘making law,’ their quasi-legislative rules have the dignity of statutes. When a court assesses the validity of such rules, the scope of its review is narrow. If satisfied that the rule in question lay within the lawmaking authority delegated by the Legislature, and that it is reasonably necessary to implement the purpose of the statute, judicial review is at an end.” (*Yamaha Corp. of America v. State Bd. Of Equalization* (1998) 19 Cal.4th 1, 10-11.)

In the present case, appellant objects to the manner in which the trial court applied this two-step standard of review. Appellant insists that it is entitled to an independent judicial assessment and determination as to the validity of each challenged performance standard and component of the Cap-and-Trade program. We disagree with appellant’s conflation of the two-step standard of review.

“It is true that ultimate responsibility for construction of a statute rests with the courts. [Citation.]” (*Carrancho v. California Air Resources Board* (2003) 111 Cal.App.4th 1255, 1272 (*Carrancho*)). Thus, we independently review the statute to determine whether the Board exceeded its authority by adopting and implementing the Cap-and-Trade program regulation. However, to the extent we find that the Board acted within its authority, we apply a different, more deferential, standard to our review of the particular performance standards the Board developed and implemented in order to effectuate the statutory purpose of the 2006 Act. “A court passing on the means employed by an agency to effectuate a statutory purpose will not substitute its judgment

for that of the agency in the absence of arbitrary and capricious action. [Citation.]” (*Carrancho, supra*, at p. 1272; see also *American Coatings, supra*, 54 Cal.4th at pp. 460-461.)

B. Analysis

As discussed above, section 38562(d)(2) states that a market-based compliance mechanism adopted by the Board “shall ensure” that the reduction of GHG emissions achieved by the mechanism “is in addition to any greenhouse gas emission reduction otherwise required by law or regulation, and any other greenhouse gas emission reduction that otherwise would occur.”

There is no dispute in this case that the Cap-and-Trade program requires that GHG emission reductions that generate offset credits are in addition to GHG emission reductions otherwise required by law or regulation. Rather, appellant’s claim is that the Board exceeded its authority under the 2006 Act by adopting a market-based compliance mechanism which fails to ensure that offset credits are in addition to “any” GHG emission reductions that “otherwise would occur.” (§ 38562(d)(2).)

Appellant reasons that “[w]hen the Legislature uses the word ‘any,’ it unambiguously intends to cover each, every, and all.” (Citing, e.g., *Viva! Internat. Voice for Animals v. Adidas Promotional Retail Operations, Inc.* (2007) 41 Cal.4th 929, 937.) Although appellant spends significant time making this point, it does not appear to be disputed in this case. Indeed, we agree with an observation in the trial court’s statement of decision that “All parties agree that each and every reduction must be additional. They disagree on how to determine additionality.”

Thus, the real dispute in this case pertains to a different phrase in section 38562(d)(2) which requires that reductions generated by a market-based compliance mechanism must be in addition to reductions “that otherwise would occur.” Appellant characterizes this phrase as “plain language,” imposing a clear mandate on the Board to “ensure that each and every reduction that generates an offset would not otherwise occur.” Appellant never articulates how a project operator could prove the GHG emission reduction would not otherwise occur or how the Board could provide the

assurance that appellant claims the statute demands. Instead, appellant takes the rather pedantic position that this part of the section 38562(d)(2) additionality requirement speaks for itself and expressly requires unequivocal proof that the emissions reduction would not otherwise occur.

Although the 2006 Act requires additionality in the context of a market-based compliance mechanism, it does not define the word “additional.” Nor does it define the term “otherwise would occur.” (§ 38562(d)(2).) However, the Act does define “[m]arket-based compliance mechanism” as including GHG “emissions exchanges, banking, *credits*, and other transactions, *governed by rules and protocols*” to be established by the Board. (§ 38505, subd. (k)(2), italics added.)

Within this authority, the Board established rules and protocols which give sufficient meaning to the concept of additionality so that the statutory requirement is capable of enforcement. By developing these rules and protocols the Board did not exceed its power, but rather exercised the legislative authority delegated to it by the Legislature. (See *American Coatings, supra*, 54 Cal.4th at p. 462 [the “delegation of legislative authority to an administrative agency sometimes ‘includes the power to elaborate the meaning of key statutory terms’ ”]; *Carrancho, supra*, 111 Cal.App.4th at p. 1266 [“the formulation and adoption of rules is the clearest example of a quasi-legislative function performed by an agency, a form of substantive lawmaking delegated by the Legislature”].)

Although we find no case law that interprets section 38562(d), our conclusion is consistent with authority construing other provisions of the 2006 Act. In *Irritated Residents, supra*, 206 Cal.App.4th 1487, the petitioner alleged that the Board’s “Climate Change Scoping Plan” (which authorized the development of the Cap-and-Trade program) failed to comply with the requirements of the 2006 Act. (*Id.* at p. 1489.) The trial court rejected that contention and Division Three of this court affirmed the judgment, holding that the Board did not disregard statutory requirements or act arbitrarily or capriciously. The *Irritated Residents* court found, among other things, that the directives imposed on the Board by the 2006 Act are all “exceptionally broad and

open-ended,” leaving “virtually all decisions to the discretion of the Board” (*Id.* at p. 1495.) We agree with that conclusion.

Appellant “concedes that the Legislature gave [the Board] wide latitude in deciding how the statute’s emission reduction goals are to be met and indeed, whether a market-based compliance mechanism should be employed at all.” Nevertheless, it contends that the “few parameters the Legislature did explicitly impose . . . must be obeyed.” According to appellant, one of those parameters is that each and every GHG reduction used to generate an offset must be “additional.” This parameter is absolutely mandatory, appellant contends, because section 38562(d) uses the word “shall,” and no other provision of the 2006 Act “override[s] this mandatory prohibition.”

We accept that additional means additional and that “otherwise would occur” also means what it says. But these concepts are not self-executing. The fundamental problem with appellant’s interpretation of section 38562(d)(2) is that it refuses to account for the fact that it is virtually impossible to *know* what otherwise would have occurred in most cases. Whether a project would have been implemented without the offset incentive “is hypothetical and counter-factual—it can never be proven with absolute certainty.” (Schneider, *supra*, at p. 7.) Thus, the practical effect of accepting appellant’s unworkable statutory interpretation would preclude the Board from implementing many, if not all, market-based compliance mechanisms. We do not believe that is what the Legislature intended.

Instead, based on our independent review of the relevant statute, we conclude that the Legislature delegated rule-making authority to the Board to establish a workable method of ensuring additionality with respect to offset credits accepted pursuant to a market-based compliance mechanism like the Cap-and-Trade program regulation at issue in this case. Although we reach this conclusion independently, we note that the trial court’s well-reasoned statement of decision supports our disposition of this case. Perhaps anticipating our reaction to the statement of decision, appellant makes several arguments on appeal to circumvent our reaching the same conclusion as did the trial court.

For example, appellant appears to contradict its earlier position by contending that it does not dispute the Board has authority to establish rules defining and implementing the section 38562(d)(2) additionality requirement. Instead, appellant argues that its mandate petition challenges only the offset protocols, *not* the offset provisions, of the Cap-and-Trade regulation. According to appellant, the regulatory provisions are not invalid because they can and should be construed as requiring a case-specific assurance that each and every offset credit project generates an additional reduction. By contrast, appellant posits, the Compliance Offset Protocols are inherently inadequate because they predetermine additionality pursuant to a standards-based assessment of the “class of offset projects” covered by that protocol.

To be sure, the petition for writ of mandate focuses on the Compliance Offset Protocols, but it expressly challenges the provisions of the Board regulation that implement those protocols. Regardless, the new distinction appellant draws between the offset provisions in the regulation and the offset protocols is illusory. The Board’s actions expressly require that an offset project meet the additionality requirements set forth in *both* the regulation as well as any additionality requirements of the pertinent protocol. (17 CCR § 95973, subd. (a)(2).) Furthermore, each offset protocol also explicitly requires compliance with the additionality requirements in the regulation. In other words, the Cap-and-Trade program regulation establishes a standards-based mechanism to ensure that GHG emission reductions that generate offset credits are in addition to reductions that would otherwise occur, and the offset protocols are an integral part of that mechanism. Because the Board has statutory authority to establish a market-based compliance mechanism which employs a standards-based approach for ensuring additionality, it did not exceed that authority by using standards-based protocols to implement that mechanism.

Appellant also asserts on appeal that it has never challenged the Board’s authority to employ a standards-based approach for assessing additionality. Appellant faults the trial court for creating this misconception and mischaracterizing the petition as challenging the Board’s authority to use performance standards. By doing so, the trial

court allegedly created a “false dichotomy” between protocols that use performance standards to assess additionality and the project-by-project approach which “focus[es] on each project’s unique location and circumstances.” Appellant insists that this “ ‘standards based vs. project-by-project’ dichotomy was never in dispute” because appellant has always recognized that “a performance standards-based approach could conceivably meet the terms of the statute as long as the standard ensures that no project that would otherwise occur would be allowed to generate offset credits.”

First, as a factual matter, the petition clearly challenges the Board’s use of performance standards. The petition charges that performance-based standards violate the 2006 Act because they fail to weed out projects that would otherwise occur by requiring only that a GHG emission reduction project achieve a reduction that is better than the benchmark for conduct in that industry. We have rejected this contention because it is based on an interpretation of the statutory phrase “would otherwise occur” that would essentially preclude the Board from exercising its delegated authority to implement most, if not all, market-based compliance mechanism.

Second, appellant’s conception of a “performance standards-based approach” which “ensures that no project that would otherwise occur would be allowed to generate offset credits” incorporates the same unworkable definition of the statutory requirement. Appellant’s theory when taken to its logical conclusion is that there is no approach which can establish that an offset is additional because the 2006 Act demands a degree of certainty that can never be satisfied.

Aside from its erroneous theory about the meaning of the phrase “otherwise would occur,” appellant also repeatedly contends that the Board exceeded its statutory authority by authorizing offset credits for projects that are “already occurring.” Although not well-developed, appellant’s argument appears to be that the Board “does not have the statutory authority to treat a project that is already occurring as not occurring.” In a footnote, appellant elaborates that the regulation permits a project to qualify for an offset credit pursuant to one of the Compliance Offset Protocols even if the project commenced before those protocols were adopted. In that same footnote, appellant argues that the regulation

also permits a project to qualify as an offset under one of the Reserve protocols even if that project commenced before the 2006 Act was passed. (See 17 CCR §§ 95973, subd. (c), 95990, subd. (c).)

Two provisions of the 2006 Act undermine appellant’s assumption that a project that commenced before the Cap-and-Trade program was adopted can never satisfy the statute’s additionality requirement. First, as noted in our summary of the 2006 Act, the Legislature established several guidelines for the Board to follow when exercising the quasi-legislative power delegated to it by the Act. (§ 38562.) One of those guidelines states: “In adopting regulations pursuant to this section . . . , to the extent feasible and in furtherance of achieving the statewide greenhouse gas emissions limit, the state board shall . . . [e]nsure that entities that have voluntarily reduced their greenhouse gas emissions prior to the implementation of this section receive appropriate credit for early voluntary reductions.” (§ 38562, subd. (b)(3).) Second, section 38563 of the Act states: “Nothing in this division restricts the state board from adopting greenhouse gas emission limits or emission reduction measures prior to January 1, 2011, imposing those limits or measures prior to January 1, 2012, or providing early reduction credit where appropriate.”

These provisions of the 2006 Act reflect that the Legislature contemplated that there could be incentives for voluntary early reductions even before the Act was passed, and that it authorized the Board to credit those early actions. Implicitly acknowledging this fact in its reply brief, appellant contends that the Board exceeded its authority under these statutory provisions by implementing an early action offset program that incorporates the Reserve protocols because they suffer from the same alleged defects as the Board’s other protocols. According to appellant, “both sets of protocols fail to weed out activity that ‘otherwise would occur,’ relying instead on predetermined findings that the type of activity is beyond ‘common practice.’ ” (Fn. omitted.) In other words, appellant challenges the early action offset program on the same ground that it challenges the other offset provisions of the Cap-and-Trade program—because it does not mandate proof of an unknown. We have already explained why that challenge fails.

Finally, appellant requests that this court independently evaluate the effectiveness of specific measures incorporated into several of the Compliance Offset Protocols. However, a court will not, “in the guise of a challenge” to an agency’s statutory authority, “venture into an independent determination of the wisdom of the challenged regulation. [Citations.] Thus, in considering the consistency of the challenged regulation with the authorizing statute, we will not substitute our judgment for that of the agency with respect to such things as the existence and weight to be accorded the facts and policy considerations that support the regulation. Rather, we limit our review to a determination of whether the [agency] reasonably interpreted its legislative mandate. [Citation.]” (*Western States, supra*, 99 Cal.App.4th at p. 1007.)

Here, the administrative record demonstrates that the Board engaged in an extensive regulatory process in order to establish a working definition of additionality that (1) furthers the purposes of the 2006 Act and (2) can be implemented through the use of offset protocols incorporated into the Cap-and-Trade program. That process included soliciting input from the public, pertinent industries, and relevant experts.

The voluminous record produced during regulatory proceedings undertaken by the Board includes, among other things, a “Final Statement of Reasons for Rulemaking, Including Summary of Public Comments and Agency Responses,” a more than 2000-page document summarizing the extensive evidence supporting the Board’s decision to adopt the Cap-and-Trade program regulation and to include offset credits as an integral component of that program. The record also includes a final staff report for each Compliance Offset Protocol which explains the basis for the protocol and the additionality requirement applicable to that category of projects. These reports and other evidence in the administrative record substantially support the many policy decisions the Board had to make in order to formulate protocols which complied with the requirements of the 2006 Act by, among other things, implementing and enforcing the Board’s interpretation of the additionality requirement. Appellant has failed to demonstrate that any action the Board took was arbitrary or capricious.

IV.
DISPOSITION

The judgment is affirmed.

RUVOLO, P. J.

We concur:

REARDON, J.

RIVERA, J.

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Trial Judge: Hon. Ernest H. Goldsmith

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