

## UPDATED INFORMATION DIGEST

### REGULATION TO IMPLEMENT THE CALIFORNIA CAP-AND-TRADE PROGRAM

**Sections Affected:** This action adopts California Code of Regulations (CCR), title 17, new article 5, which contains new sections 95800, 95801, 95802, 95810, 95811, 95812, 95813, 95814, 95820, 95821, 95830, 95831, 95832, 92833, 95834, 95840, 95841, 95841.1, 95850, 95851, 95852, 95852.1, 95852.1.1, 95852.2, 95853, 95854, 95855, 95856, 95857, 95858, 95870, 95890, 95891, 95892, 95893, 95910, 95911, 95912, 95913, 95914, 95920, 95921, 95922, 95940, 95941, 95942, 95943, 95970, 95971, 95972, 95973, 95974, 95975, 95976, 95977, 95977.1, 95977.2, 95978, 95979, 95980, 95980.1, 95981, 95981.1, 95982, 95983, 95984, 95985, 95986, 95987, 95988, 95990, 95991, 95992, 95993, 95994, 95995, 95996, 95997, 96010, 96011, 96012, 96013, 96014, 96020, 96021, 96022 and 96023.

**Background:** The California Global Warming Solutions Act of 2006 (Assembly Bill 32; Stats. 2006, Chapter 488) (AB 32) authorizes ARB to implement a comprehensive, multi-year program to reduce greenhouse gas (GHG) emissions in California. AB 32 required ARB to develop a scoping plan to reduce GHG emissions in California to 1990 levels by 2020. The Scoping Plan includes a comprehensive set of actions designed to reduce GHG emissions in California, improve the environment, reduce dependence on foreign oil, diversify energy sources, save energy, create new jobs, and enhance public health. Meeting the goal of AB 32 requires a coordinated set of strategies to reduce GHG emissions throughout the economy that work within a comprehensive tracking, reporting, verification and enforcement framework. The Scoping Plan includes a variety of measures to achieve AB 32 goals, including direct regulations, performance-based standards, and market-based mechanisms. The measures included in the Scoping Plan continue to be developed through an open public process and will be in place by 2012. Many of the measures in the Scoping Plan complement and reinforce each other.

The Scoping Plan directs ARB staff to develop a cap-and-trade regulation, which is a type of market-based compliance mechanism. Once implemented, the cap-and-trade regulation will provide a fixed limit on GHG emissions from the sources responsible for about 85 percent of the state's total GHG emissions. The cap-and-trade regulation will reduce GHG emissions by applying a declining aggregate cap on GHG emissions, and will also create a flexible compliance system through the use of tradable instruments (allowances and offset credits). The regulation is designed to link up with partners in other jurisdictions, beginning with the Western Climate Initiative (WCI).

In 2007, California helped establish the Western Climate Initiative, a cooperative effort of seven U.S. states and four Canadian provinces (the "partners") that are collaborating to identify, evaluate, and implement policies to reduce GHG emissions, including the design and implementation of a regional cap-and-trade program. ARB has consulted with the partners in formulating the regulation, and anticipates linking to programs promulgated by the partners as they are adopted.

ARB staff conducted an extensive public process during the development of the California cap-and-trade regulation. Through 2009 and 2010, staff developed the overall options for program design and development. ARB staff conducted extensive public consultation, including more than 40 public meetings, to discuss and share ideas with the general public and key stakeholders on the appropriate structure of the cap-and-trade program. In November 2009, staff released a conceptual framework for the cap-and-trade regulation, called the Preliminary Draft Regulation (PDR), and held a workshop on the draft in December. Staff received over 130 written comments in response to the PDR. Staff also met regularly with individual stakeholders to hear their concerns and recommendations. ARB staff collected public comments during each public workshop, which focused on key topics and program design components.

ARB also received input and advice from the Market Advisory Committee and two advisory committees created under AB 32: the Economic and Technology advancement Advisory Committee (ETAAC) and the Environmental Justice Advisory Committee (EJAC). In addition, in May 2009, ARB, in conjunction with Cal/EPA, convened the Economic and Allocation Advisory Committee (EAAC), which included economic, financial, and policy experts. The EAAC provided recommendations on cap-and-trade program design and reviewed ARB's updated economic analysis on the Scoping Plan that was completed in March 2010.

### **Description of the Regulatory Action:**

After considering the comments received, ARB staff is proposing a regulation that would establish the framework and requirements for California's GHG cap-and-trade program. Cap-and-trade is a regulatory approach that would control GHGs from major emission sources ("covered entities") by setting a firm limit (the "cap") on GHG emissions while employing market mechanisms to cost-effectively achieve the emission reduction goals. The cap for GHG emissions from major sources would commence in 2012 and decline over time, achieving emissions reductions throughout the program's duration. The cap is measured in metric tons of carbon dioxide equivalent (MTCO<sub>2e</sub>). Covered entities will be able to buy permits to emit (allowances) at auction, purchase allowances from others, or purchase offset credits (the "trade"). Allowances and offset credits are more fully discussed below.

The cap-and-trade program would establish the total amount of GHG emissions that major sources would be allowed (permitted) to emit. ARB would distribute allowances to emit GHGs, and the total number of allowances created would be equal to the total amount ("aggregate cap") set for cumulative emissions from all covered entities. Each allowance would permit the holder to emit one MTCO<sub>2e</sub> of GHG. Covered entities include major GHG emitting sources, such as electricity generation, including imports, and large stationary sources (i.e. refineries, cement production facilities, oil and gas production facilities, glass manufacturing facilities, food processing plants) that emit more than 25,000 MTCO<sub>2e</sub> per year, as well as natural gas and propane fuel providers and transportation fuel providers.

The cap-and-trade program is one of the key measures included in the Scoping Plan to reduce GHG emissions. Covered entities under the cap may also be subject to other measures, standards, and regulations, including improved building efficiency standards, vehicle efficiency measures and applicable air pollution regulations.

### ***Applicability***

Starting in 2013, the regulation includes covered entities emitting more than 25,000 MTCO<sub>2</sub>e. This includes GHG emissions from electricity generation, including imports; industrial combustion at large stationary sources; and industrial process emissions for which adequate quantification methods exist. The program will expand in 2015 to include fuel distributors to address emissions from transportation fuels, and from combustion of other fossil fuels not covered directly at large sources in the initial phase of the program. The first two years of the regulation are known as the “first compliance period,” and the second three years are known as the “second compliance period.”

The first compliance period would include sources responsible for more than one-third of the economy-wide emissions in California. Starting with the second compliance period, the program would include major sources of GHG emissions responsible for about 85 percent of emissions. ARB could choose to expand the applicability of the program to include additional covered entities over time based on new information.

The regulation defines and includes requirements for covered entities, opt-in covered entities, voluntarily associated entities, and other registered participants. Opt-in covered entities are industries with processes and operations that would make them covered entities except that their emissions do not exceed the 25,000 MTCO<sub>2</sub>e threshold, and they choose to participate in the cap-and-trade program. Opt-in covered entities are subject to the regulation as if they exceeded the 25,000 MTCO<sub>2</sub>e threshold, including reporting, verification and compliance requirements and eligibility for allowance distribution. Voluntarily associated entities are parties such as the general public, investment banks, land use easements and private citizen groups that would be allowed to hold allowances and offsets, and are subject to registration and reporting requirements. Other registered participants include verifiers or verification bodies, which could be private or government organizations; these participants cannot participate in trading and cannot hold compliance instruments. Under the regulation, covered entities and opt-in covered entities are required to register with ARB, report their emissions annually, acquire compliance instruments, and surrender compliance instruments to match their emissions for the compliance period. Voluntarily associated entities would also need to apply and register with ARB.

The cap-and-trade regulation applies to the following GHGs: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>). In a separate rulemaking action, ARB’s existing mandatory reporting regulation was amended to support the cap-and-trade program.

## ***Compliance Instruments***

The regulation creates two kinds of “compliance instruments” to allow covered entities to meet their obligations under the cap: allowances and offset credits. Approved compliance instruments would be issued by ARB or other programs that are approved by the Board. Each allowance or offset credit represents one MTCO<sub>2e</sub>.

### ***Allowances***

The cap is divided into annual budgets that specify the number of allowances created for each year from 2013 through 2020. The allowance budget for 2013 uses the best estimate of actual emissions in 2012 for those sources that would be covered at the start of the cap-and-trade regulation reduced appropriately by the cap decline factor for one year. Each year beginning in 2014, fewer allowances are issued on an annual basis. In 2015, the program would expand to cover providers of transportation fuels and residential and commercial fuels. Therefore, the initial 2015 allowance budget reflects the addition of these GHG emissions, with the increase based on the best estimate of the actual emissions in 2015 for those sources added to the program that year. The cap will then decline until 2020. The 2020 cap will be set at a level designed to allow California to achieve the AB 32 target in 2020.

The allowances will be distributed through a combination of free allocation and sale at auction. The number of allowances distributed through free allocation declines over time.

### ***Offset Credits***

An offset credit is a compliance instrument that represents a reduction or removal of one MTCO<sub>2e</sub> of GHGs resulting from an activity not covered by the cap that can be measured, quantified, and verified. This credit can then be sold and used by a covered entity to meet a portion of its compliance obligation under the regulation. Covered entities can use offset credits to satisfy up to eight percent of the entity’s total compliance obligations during a single compliance period. Although the source that produces an offset would not be covered under the regulation, it can generate reductions for use by entities that must comply with the cap. Offset credits need to meet criteria identified in the regulation that demonstrate that the emission reductions are real, permanent, verifiable, enforceable, quantifiable, and additional.

The regulation also includes a process for offset credits from qualified existing offset projects operating under specific offset protocols to be accepted into the compliance offsets program. The regulation also establishes a framework for accepting sector-based offset credits from developing countries, though additional evaluation will be needed before such credits can come into the program.

## ***Offset Protocols***

ARB is proposing four compliance offset protocols for the Board to consider as part of the regulation: Compliance Offset Protocol for U.S. Ozone Depleting Substances Projects, Compliance Offset Protocol for Livestock Manure (Digester) Projects, Compliance Offset Protocol for Urban Forest Projects, and Compliance Offset Protocol for U.S. Forest Projects. The Board considered each of these protocols as part of the regulation. Projects using the offset protocols are subject to verification and enforcement requirements that are specified in the regulation. The protocols are incorporated into the regulation by reference, and changes will require future Board action. However, changes to quantification methodologies are exempt from the Administrative Procedure Act (APA). An offset project operator using ARB approved protocols needs to publicly list its project and register with ARB or an ARB approved Offset Protocol Registry, which includes private or other government entities.

## ***Linking to Other Cap-and-Trade Programs***

The regulation includes general requirements for linking to other programs. Establishing linkage with other programs will require ARB approval under the APA before allowances and/or offset credits from an external program can be used for compliance with California's regulation. The regulation does not propose linking to any specific programs at this time. One other WCI Partner jurisdiction (Quebec) is moving forward to initiate its cap-and-trade programs in 2012. ARB staff will evaluate this program in 2012 and expects to make recommendations to the Board on whether linkage to this WCI program can be in place when California's enforcement of the compliance obligation starts in 2013.

## ***Registration and Accounts***

Under the regulation, ARB is responsible for tracking information regarding compliance instrument ownership, including transfers of ownership. The regulation requires entities to register with ARB and provide information to ARB regarding ownership and submittal of compliance instruments. ARB also requires reporting of information regarding certain transactions between market participants. Some participants submitting information could be entities that do not have compliance obligations or that are not located within California. All covered entities are required to register and create an account with ARB or designated account administrator to comply with the regulation. Voluntarily associated entities would need to register with the tracking system to hold ARB allowances or offsets.

The California Cap-and Trade Market Tracking System (MTS) will track compliance instrument ownership, submittals and transactions. The primary goal of the MTS is to support ARB in effective implementation of the regulation and to reduce the costs and administrative burden associated with long-term regulation responsibilities. The MTS will also provide information necessary for a secure, liquid, and transparent allowance market. ARB staff is working closely on development of the MTS with our partners in

the WCI, since coordinated approaches to a tracking system will simplify linking the individual programs into a regional market system.

### ***Compliance Requirements for Covered Entities***

The regulation applies an emissions threshold to determine the entities that would have a regulatory compliance obligation under the program. The inclusion threshold for each covered entity is based on the subset of GHG emissions that generate a compliance obligation for that entity. Fuel suppliers will be covered starting in 2015 based on a threshold applied to emissions associated with combustion of the fuels they deliver. Any entity whose emissions exceed the threshold in any year of a compliance period has a compliance obligation for that compliance period and the next compliance period, unless it has shut down all processes. For an entity that has shut down all processes, units, and supply operations subject to reporting, an emissions data report must be submitted for the year in which a facility or supplier's GHG-emitting processes and operations ceased to operate, and for the first full year of non-operation following a permanent shutdown. The verification requirements in section 95103 of the Mandatory Reporting Regulation do not apply to the first full year of non-operation following a permanent shutdown.

The regulation includes multi-year compliance periods with the first period commencing on January 1, 2013. A compliance period is the length of time for which covered entities must submit compliance instruments equal to their verified GHG emissions. Covered entities are required to submit a portion of the compliance instruments annually, with the remaining due following the end of the multi-year compliance period. Establishing compliance periods that last for multiple years (instead of one year) provides some compliance flexibility.

When the covered entity surrenders the compliance instruments, ARB permanently retires them. If a covered entity does not surrender sufficient compliance instruments by the compliance date, the regulation would require the entity to cover its deficit by submitting additional compliance instruments.

### **Greenhouse Gas Emission Reductions**

Staff estimates that implementation of the regulation will reduce GHG emissions by 18-27 MMTCO<sub>2</sub>e in 2020.

**Comparable Federal Regulations:** There are no federal regulations comparable to the Cap-and-Trade Regulation.

**Changes to Underlying Laws:** There have been no changes to the statutory authority governing adoption of this regulation.

**Changes to the Effect of the Regulation:** None.

