

If you have questions or would like additional information on the material covered in this Alert, please contact one of the authors:

Jennifer A. Smokelin
Counsel, Pittsburgh
+1 412 288 3016
jsmokelin@reedsmith.com

Todd O. Maiden
Partner, San Francisco
+1 415 659 5918
tmaiden@reedsmith.com

Lawrence A. Demase
Partner, Pittsburgh
+1 412 288 4050
ldemase@reedsmith.com

Peter Zaman
Partner, London
+44 (0)20 3116 3686
pzaman@reedsmith.com

Nicholas Rock
Partner, London
+44 (0)20 3116 3685
nrock@reedsmith.com

...or the Reed Smith lawyer with whom you regularly work.

Client Alert: AB 32 and Cap and Trade Design Basics

California, the world's fifth-largest economy and 18th in total carbon emissions if it were a separate country¹, is rapidly moving forward with the development of its cap and trade program scheduled to be implemented in 2013. This has drawn a lot of attention from businesses generating high quantities of carbon emissions or who consume large amounts of energy or fuel. Carbon futures linked to California's cap and trade program slipped recently², but after a test auction in late August 2012, news articles reported that major banks are weighing whether to wade into the California carbon market, which experts believe could grow into a \$40 billion-a-year market by 2020.³ The California state legislature passed Assembly Bill 32 (AB 32) in September 2006 requiring the state to reduce greenhouse gases emissions to 1990 levels by 2020, a 17 percent reduction—and eventually to an 80 percent reduction by 2050. There are complications to the California cap and trade system that do not exist in other cap and trade programs to date. For example, California's program covers all six "Kyoto" GHGs—a multigas-wrinkle that the EU-ETS will only be tackling in this, its third compliance period. Further, the California Air Resources Board (CARB) retains the ability to reverse trades of carbon offsets or credits in order to enforce holding limits under the CARB regulations. These will present unique challenges to compliance entities, as well as to the brokers, traders, suppliers, and others trying to create a new carbon market. To understand the basic underpinnings of the California cap and trade system, this *Alert* sets forth design elements of the system: the "what, who, when, and hows" of cap and trade under AB 32.

Design Elements	What gases?	What compliance instruments?	What surrender obligation?
Cap and Trade under AB 32	All 6 Kyoto GHGs	California Carbon Allowances (CCAs) and offsets (use of offsets limited to 8% compliance obligation)	30% of compliance obligations annually; the rest at “true up” after the end of phase

WHAT is cap and trade? A key element of AB 32’s GHG emissions reduction requirements is the Cap and Trade Program that was adopted in December 2011. The Cap and Trade Program creates a carbon market in which major emitters of GHGs may buy, sell, and trade GHG compliance instruments.

At the end of the compliance period, covered entities must relinquish these compliance instruments to CARB via a registry account in an amount equal to their GHG emissions.

The cap starts at expected business-as-usual emissions levels in 2012, and declines 2 percent to 3 percent per year through 2020.⁴ Fewer and fewer allowances are available each year, requiring polluters to reduce their emissions or pay increasingly high allowance prices.

WHAT is an allowance?

An allowance is a compliance instrument equal to one ton of carbon dioxide. Under the California cap and trade system, the sole type of allowance recognized is a carbon credit called a CCA. Offsets can also be used to meet compliance obligations.

HOW do offsets play in the program?

- Offsets are pollution reductions that occur outside of capped sectors, but that can be used to meet compliance obligations under the cap and trade program.
- An entity may meet no more than 8 percent of its compliance obligation with offsets.⁵
- To date, CARB has approved only four offset project types. Each offset must comply with detailed accounting and reporting requirements (known as an “offset protocol”) and all offsets must be verified by a third party.⁶
- Offset credits can only be generated by projects located in the United States – no international offsets can be used in the California program at this time.⁷ Further, California is discouraging the use of offsets by introducing risks for compliance entities using offset to meet compliance obligations (e.g., “buyer liability” associated with invalidated offsets).

For more discussion of the “offset” issue under the California cap and trade program, see our accompanying Client Alert “Client Alert: **AB 32 and Offset Basics.**”

WHAT is the cap?

The program contains three compliance periods: (1) 2013-2014; (2) 2015-2017; and (3) 2018-2020. According to the draft regulations, the California carbon market will be comprised of 2.7 billion allowances from 2013-2020, starting with 162.8 million metric tons of carbon dioxide equivalent (MtCO_{2e}) in 2013 under the cap.⁸ AB 32 defines “greenhouse gases” as carbon dioxide, methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, perfluorocarbons and other fluorinated gases specifically identified in the regulations.⁹ The aggregate cap includes a cap for the electricity distribution industry of 97.7 million MtCO_{2e}, which is further reduced by an “adjustment factor” to 98.1 percent, for a total cap of 95.8 million MtCO_{2e} in 2013.¹⁰ Industrial sectors and other regulated sectors are treated differently from the electricity sector. These sectors do not have a numerical total allocation number, but instead receive the allowances remaining after the electric distribution sector receives allowances (and CARB takes a “reserve” portion).

WHO is a “covered entity”?

By 2020, the cap and trade program will cover 85 percent of California’s emissions and an estimated 22.5 percent of necessary emission reductions under AB 32.¹¹

Who is Covered?	
Phase I (2013–2015)	EGUs (generated and imported) and large industrial emissions (<25,000 Mtpy co _{2e})
Phase II (2015–2017)	Same as above plus upstream suppliers of transportation fuels (including natural gas). Approximately 350 large businesses, representing about 600 facilities.
Phase III (2018–2020)	Same as Phase II

WHO can trade? The short answer is that anyone with a Compliance Instrument Tracking System Service (“CITSS”) account can trade. California will use CITSS as a registry and transaction log for compliance instruments. To participate in California’s cap and trade program, an individual or entity must have a CITSS account to hold, transfer, and retire compliance instruments (allowances or offsets). Thus, the CITSS is a key component of a multi-jurisdiction administrative system being developed to support the implementation of state and provincial greenhouse gas (GHG) emissions trading programs. It is important to note, however, that the CITSS is not the auction platform and will not manage the

auction. CARB’s cap and trade auction will be managed by *Markit North America and Deutsche Bank*¹³

WHAT is CITSS? The primary purpose of the CITSS is to serve as an account and transaction registry to accommodate:

- Account management for compliance entities, including industrial sources and non-emitting units (e.g., load-serving entities)
- Account management for non-compliance entities, including registry administrators, government agencies or representatives, brokers, nongovernmental organizations, and private citizens
- Allowance and offset transaction tracking and management¹⁴

What Does CITSS Do?
• All valid allowances are issued in CITSS
• CITSS tracks allowances for all cap and trade program participants
• Account holders must complete Know Your Customer check
• CITSS tracks all sales and transactions
• All auction buyers must be registered in CITSS
• Secondary market buyers and sellers must be known to CITSS before sale

Under the California program, multiple parties may be registered and involved in holding, trading and selling allowances. First, there are covered entities. These are the actual facility operators with associated GHG emissions. Second, there are opt-in covered entities that do not exceed the inclusion thresholds to be a covered entity, but that wish to voluntarily opt-in to the cap and trade program. Third, there are also voluntarily associated entities that may hold compliance instruments. This includes entities that intend to purchase, hold, sell or voluntarily retire compliance instruments (like traders and banks), entities operating offset projects, and entities providing clearing services that take temporary possession of compliance instruments. Finally there are other registered participants that do not qualify to hold compliance instruments (these include parties such as verification bodies and registries).

Multiple types of accounts are also created for registered entities. These include holding accounts, limited-use holding accounts, compliance accounts and exchange clearing house holding accounts.¹⁵

In addition to covered and opt-in covered entities, there are geographic restrictions associated with becoming a registered entity. However, in the registration process, the registering party must provide detailed disclosure information regarding direct and indirect corporate associations with other registered entities.

WHEN do “covered entities” require emissions allowances? Starting in 2014, entities must annually surrender allowances equal to 30 percent of their verified

emissions from the year before.¹⁶ At the end of each compliance period at “true up,” each entity must surrender allowances or offsets equal to all of the pollution it has emitted in the compliance period adjusted for the surrender obligation by Nov. 1 of the following year.¹⁷ Compliance entities can meet their allowance obligations through a combination of on-site emissions reductions, allowance purchases, and verified reductions made at other sources (*i.e.*, *offsets*).

There are two ways to get an allowance initially: get it for free or buy it. After that, entities can purchase and sell allowances among themselves (bilateral trades). One of the controversial aspects is how regulated facilities will receive their emission allowances: some sectors will receive allowances through free allocations issued by CARB, while other sectors will be required to purchase allowances via auctions or market-based trades.¹⁸ For more discussion of the “auction” under the California cap and trade program, see our accompanying *Client Alert* “Client Alert: AB 32 and Auction Basics.”

¹ *The AB 32 Challenge: Reducing California's GHG Emissions*, Los Angeles County Economic Development Corp (2008)

² <http://www.bloomberg.com/news/2012-08-30/california-s-simulated-carbon-auction-seen-as-slam-dunk-.html>

³ <http://www.reuters.com/article/2012/09/07/us-california-carbon-idUSBRE88600S20120907>

⁴ Sec 95841 Table 6-1

⁵ Sec 95971

⁶ Sec. 95973

⁷ Sec 95971 (although there is room in the program for approval of other offsets at a later date)

⁸ Based on allowance budgets in 2013 and the auction price floor of \$10 per metric ton (discussed *infra*), the California allowance market value would be worth \$1.6 billion. By comparison, 850 million MtCO₂e traded in 2009 in the Regional Greenhouse Gas Initiative (RGGI) program in the Northeast United States, with a value of more than \$2 billion. Both of these U.S. markets, however, will continue to lag behind the EU-ETS, which saw more than 11 percent growth in the allowance market in 2011 for a total value of more than \$118 billion. (See, *State and Trends in Carbon Market, Carbon Finance at the World Bank, May 2012.*)

⁹ For comparison, other successful cap and trade programs are limited to single pollutants (*e.g.*, in the case of Phase I and II of the EU-ETS, and RGGI, carbon dioxide).

¹⁰ Sec 95812(c)

¹¹ CARB's Supplement to the AB 32 Scoping Plan, page 20

¹² <http://www.arb.ca.gov/cc/capandtrade/markettrackingsystem/markettrackingsystem.htm>

¹³ <http://www.arb.ca.gov/cc/capandtrade/auction/auction.htm>

¹⁴ <http://www.arb.ca.gov/cc/capandtrade/markettrackingsystem/markettrackingsystem.htm>

¹⁵ <http://www.arb.ca.gov/cc/capandtrade/markettrackingsystem/markettrackingsystem.htm>

¹⁶ Sec 95856(a)-(g)

¹⁷ *Id.*

¹⁸ As another controversial matter, the cap on non-electrical emissions declines more rapidly than the cap on electrical sector allocations. Electrical sector allocations decline a total of 13.3 percent from 2013 to 2020, while industrial and other sector allocations decline 20.5 percent from 2015 to 2020.