

THE “SAFE MARKET DEVELOPMENT APPROACH” TO CAP-AND-TRADE *CONTAINS COSTS, ELIMINATES SPECULATION, MEETS EMISSION GOALS*

Frequently Asked Questions

Developed by the Center for Clean Air Policy, the Safe Market Development Approach responds to concerns about the possibility of volatile emission allowance prices, market manipulation and speculators interfering with new carbon markets. During Phase I (2012 through 2019) of a cap-and-trade program, the Approach creates predictable allowance prices and meets critical 2020 emissions goals. The Approach also enforces a cumulative emissions budget for the period while allowing some fluctuation in annual emissions as needed to stabilize allowance prices. Beginning in 2020, Phase II moves to a more traditional cap-and-trade program with annual emissions caps.

The Phase I procedures not only create predictable prices, but also virtually eliminate highly volatile allowance prices, market manipulation and excess speculation that could lead to destructive booms and busts in allowance prices. It also provides confidence in the early years of the program when there are many new market participants and untested regulatory mechanisms.

The proposal includes a thorough program review between 2017 and 2018, so that the precise design details of Phase II can be refined based on the experience during Phase I.

Q: What procedures are used in Phase I?

A: During Phase I, the implementing organization — most likely an expertly staffed Board — will publish a forecast for the Phase I period that will include gradually rising allowance prices and declining emissions that are needed to reach a hard 2020 emission cap. The Board will set the forecast price for the coming year as a target price and adjust the number of allowances issued in quarterly auctions so that the average market price of allowances comes in close to that target price. It will also review emissions performance at the end of each year and adjust its forecast for Phase I prices as needed to ensure that the path of emission reductions remains in line to achieve the 2020 emission cap.

Q: How will the target price for allowances be set?

A: During the first year of the program, the enabling legislation could set a range within which the Board (or the President) will choose the initial allowance target price. The Board will review a range of public and private models that forecast emissions and allowance prices through 2020. It will then use its judgment to select a forecast of prices that is designed to keep emissions on track to achieving the 2020 emission cap.

In subsequent years up to 2020, the Board will adjust its forecast and the annual target prices as needed to ensure continued timely progress toward the 2020 emission cap. These forecasts and targets will be thoroughly discussed in congressional hearings each year.

Q: How is the target price for allowances modified each year?

A: The target price and Phase I forecast price path may be modified annually to keep emissions on track to achieving the 2020 emission cap. In deciding whether to modify its price and emissions forecast each year, the Board will analyze the reasons why actual emissions were above or below the forecasted level of emissions during the prior year. It will identify any factors that have only temporary effects on emissions such as unusual weather or fluctuations in economic activity. However, it will not adjust the forecast price path because of changes caused by these temporary factors. Instead, it will only adjust its forecast price path because of changes in “trend factors”

that will likely persist through 2020 — such as changes in the baseline emission intensity of the economy or the longer-run costs of emission abatement.

Q: Will Phase I cumulative emissions meet legislative goals and what will be done if they do not?

A: Cumulative emissions will come close to legislative goals assuming that (1) year-to-year temporary factors such as warmer or colder weather will balance out over the Phase I period and (2) the forecast price path is revised in response to trend factors likely to persist through the end of Phase I. However, if cumulative emissions over the Phase I period exceed the goal laid out in legislation, the number of allowances to be issued in the first decade or two of Phase II will be lowered commensurately. If cumulative emissions are less than expected during Phase I, it may be taken as a gain for the environment with no resulting upward adjustment in Phase II allowances.

Q: Will allowances need to be auctioned under this approach?

A: Some allowances can be distributed for free, but enough allowances will need to be auctioned to enable the Board to hit its annual target price during Phase I. If too many allowances are distributed for free, there could be insufficient demand in allowance auctions to sustain the target price, and prices may fall below the level needed to ensure progress toward the 2020 emission cap.

Q: Will some allowance banking be permitted in Phase I?

A: Yes. A small amount of banking (such as five percent of compliance obligations) will be useful so that firms will not have to dump any excess allowances between the last government auction and the end of the trading year. Carefully managed auction quantities would stabilize market prices. If allowance prices are expected to rise significantly in the following year, firms will likely choose to bank the maximum amount. Even if prices are not expected to rise very much, firms will probably want to hold a little cushion of excess allowances to protect themselves against possible subsequent corrections in their emissions data.

Q: Will limits be placed on allowance banking in this approach, and, if so, how?

A: Yes. Limits are essential in Phase I, when the allowance price is kept close to the target price each year and the target price is expected to increase from one year to the next. If banking were unlimited, firms would be able to buy allowances at a low price at the end of one year and use them in the next year, undermining the ability of the Board to raise allowance prices gradually over time. Moreover, if there were no limits on the size of allowance banks, institutional investors such as pension funds and hedge funds could make large investments in allowances merely for their financial returns. The substantial flow of funds in or out of allowance markets from these sources could raise or lower prices substantially enough to create allowance price booms and busts, much like those that happened recently in the oil markets. Subject to the review of the program in 2017 through 2018, looser limits could be placed on banking in Phase II.

Q: With limited allowance banking, will there still be an incentive for early reductions in emissions?

A: A regulated firm's expectation of the price of emission allowances is what motivates it to invest in emission abatement. Banking is needed as an incentive for early reductions in emissions only if the price of allowances would fall too low in the absence of banking. Under the Approach, the price of emission allowances cannot fall too low because the Board would withhold allowances from the market, if needed, to maintain the target price. The Approach will maintain incentives for early emission reductions while avoiding the potentially destabilizing effects of unlimited banking.

Q: How will Phase I of the program be different from a carbon tax?

A: A carbon tax sets a price for emissions (which could be allowed to rise over time) but may not be high enough to motivate the emission reductions needed to meet environmental goals. Unlike a carbon tax, the Approach will allow careful development of the infrastructure for an allowance market. For example, under the Approach, the path for allowance prices during Phase I will be closely linked to achieving a 2020 emission cap. In addition, the path will be adjusted each year based on improved understanding of trend factors to ensure sufficient progress toward achieving the 2020 cap.

Q: How will Phase I of the program differ from a safety valve, allowance reserve or price corridor?

A: Under any of these differing approaches, if the ceiling price (or threshold price in the case of an allowance reserve) is set too low, emissions could exceed expectations year after year. If the ceiling or threshold price is set too high, considerable price volatility could occur below the ceiling price level.

In contrast, the market price of allowances in Phase I of the Approach will stay fairly close to the target price for the year and is closely linked to achieving a hard emission cap in 2020. Moreover, the price will be adjusted each year to ensure sufficient progress toward hitting that cap. Finally, as mentioned above, these "training wheel" procedures will be used only for the initial years of the program; they will be replaced by hard annual emission caps in Phase II.

Q: How will market manipulation and speculative excess be restrained in Phase I?

A: Limits on allowance banking will restrain manipulative and speculative behavior. In addition, the stable and predictable allowance price path created under this program will remove incentives for manipulative behavior — as such behavior would fail to move prices. Stabilization of prices will also help to eliminate the development of speculative bubbles based on unsustainable price expectations.

Q: Which institution should be responsible for implementing the program?

A: While a variety of institutions could implement cap-and-trade under the Approach, in Phase I, we recommend an independent Board of non-governmental experts with expertise in: emissions monitoring and enforcement; forecasting emissions and prices of emission allowances; conducting auctions; and establishing regulatory principles and procedures for the new greenhouse gas (GHG) allowance market. The secretaries of Treasury and Energy as well as the administrator of the Environmental Protection Agency would also serve ex-officio on the Board. The Board would establish the price path in Phase I and determine the number of allowances that need to be auctioned to maintain the average price for each year. The program could also include a Council to coordinate federal regulatory oversight over the new carbon markets. This coordinating Council could include the Environmental Protection Agency, Department of the Treasury, Department of Energy, Federal Energy Regulatory Commission, Security and Exchange Commission and the Commodities Futures Trading Commission.

Q: Will the Board operate in a transparent way?

A: The Board's accountability will be addressed in required annual testimony before the Congress regarding its forecasts, target prices and the progress toward achievement of the 2020 emission cap. In addition, the Board will publish a detailed annual report that includes its review of the previous year, its forecasts of annual prices and emissions through 2020 and its target price for the upcoming year giving a full rationale for those decisions. This regularly scheduled congressional testimony will provide an opportunity for a thorough assessment of the reasoning behind the decisions of the implementing organization.

Q: Will politics influence price forecasts and target-setting in Phase I?

A: In Phase I, the Board actually has only a carefully limited amount of discretion. For example, in a year in which emissions exceed the expected level, it will have to raise its forecast price for the rest of Phase I to ensure sufficient progress toward the 2020 emission goal. It will face annual congressional scrutiny over the appropriateness of its decisions in meeting that legislative mandate. If the organization fails and congressional oversight also fails, hard caps will come into effect in 2020 and the cumulative emission miss in Phase I will automatically be deducted from emissions over the next decade or more.

Q: How are the Phase I procedures similar to those used by central banks to manage interest rates?

A: Many central banks, including the Federal Reserve, implement monetary policy by influencing the market price (the interest rate) in the overnight interbank lending market. This market has some similarities with the market for allowances in a cap-and-trade program. In the U.S., commercial banks are required to hold reserves against their customer deposits. These reserves may be held as currency or as account balances at the Fed. Banks (electronically) lend large amounts of reserve balances to each other on an overnight basis. The reserve compliance requirement is similar to the allowance compliance requirement in a cap-and-trade program. The demand for reserves, like the demand for allowances, is determined by government regulation. In addition, the total supply of reserves is under the control of the government, similar to the supply of allowances.

The U.S. market for reserves is a large and liquid market in which sophisticated institutions and small local community banks all participate. Despite the diverse participation, no significant manipulative behavior or speculative excesses have occurred in this market. This is because the Fed uses procedures similar to those suggested for Phase I of the GHG allowance market; in particular, the announcement of target prices and the enforcement of those targets by adjusting the amount of reserves it supplies in auctions.

Q: Why use these procedures for the GHG allowance market, when they were not used for the Acid Rain allowance market?

A: The value of allowances created by an economy-wide cap-and-trade program — likely more than \$100 billion per year — will be much larger than that of the acid rain program, which has been only a few billion dollars per year. In addition, the market for GHG will affect a more diverse set of regulated entities and have a greater overall impact on prices throughout the economy than was the case for the acid rain program. A higher proportion of the allowances will likely be auctioned in a cap-and-trade program for GHG as well, potentially generating frothier market conditions as regulated entities seek the allowances they need for compliance and speculators participate in the market. In addition, the pricing of GHG allowances will have a larger percentage impact on costs in some competitive industries than was the case in the pricing of acid rain pollutants.

Q: How will Phase II operate?

A: The Approach leaves considerable flexibility for how Phase II of the program is structured. The intention is to shift to a more typical cap-and-trade program, loosening the limits on allowance banking and allowing banking to play a larger role in containing costs and stabilizing prices. However, other types of cost containment mechanisms could be employed in Phase II as well including an allowance reserve, adjustable offset limits, system borrowing by the implementing organization or an extension of the procedures used in Phase I.

Past examples show that we should plan to learn from the experience of the initial years of the program and that our expectations for the optimum structure of a cap-and-trade system after 2019 should be adaptable and flexible. To take advantage of what is learned in first several years of Phase I of the program, the Board will report to Congress on its recommendations for improving Phase II. Providing some flexibility for course corrections could provide a better springboard for a sustainable, long-term emission mitigation program.

For more information on the Safe Market Development Approach, please visit <http://ccap.org/safe-markets.html> or contact Director of Policy Research, William Whitesell, at wwhitesell@ccap.org or Director of Legislative Affairs, Marty Spitzer, at mospitzer@ccap.org.

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