



By Robert N. Stavins

Enviro Justice and Cap-and-Trade

By enacting Assembly Bill 32, Governor Arnold Schwarzenegger's Global Warming Solutions Act, California seeks to take dramatic steps to reduce its greenhouse gas emissions. Reasonable questions can certainly be raised about the wisdom of a state's trying to address a global commons problem, but California is clearly intent on moving forward. While AB 32 does not specify the mechanisms for achieving its ambitious emissions reductions, one approach being considered is cap-and-trade, an approach which is also being considered at the federal level.

Under this approach, regulators restrict emissions by issuing a limited number of emission allowances, with the number of allowances ratcheted down over time, thus assuring ever-larger reductions in overall emissions. Pollution sources such as electric power plants and factories are allowed to trade allowances, and as a result, sources able to reduce emissions least expensively take on more of the pollution-reduction effort. Experience has shown that cap-and-trade programs achieve emissions reductions at dramatically lower cost than conventional regulation.

Yet some are uneasy about the prospect of cap-and-trade. In particular, the California environmental justice movement has announced its opposition to this approach, citing concerns that it would hurt low-income communities.

Professor Lawrence Goulder of Stanford University and I have tried to address such concerns in a recent article in *The Sacramento Bee*.

One expressed concern is that a cap-and-trade policy might increase pollution in low-income or minority communities. The apprehension is not about greenhouse gases (the focus of AB 32), since these spread evenly around the globe and thus would have no discernible impact in the immediate area. Rather, it's about "co-pollutants," such as nitrogen oxides, carbon monoxide, and particulates, which can be emitted alongside greenhouse gases.

Because a cap-and-trade system would reduce California's overall greenhouse gas emissions, it would also lower the state's emissions of co-pollutants. Still, it's possible, though unlikely, that co-pollutant emissions would increase in a particular locality. But here it's crucial to recognize that existing air pollution laws address such pollutants, and so any greenhouse gas allowance trades that would violate local air pollution limits would be prohibited.

If current limits for co-pollutants are thought to be insufficient, the best response is not to scuttle a statewide system that can achieve AB 32's ambitious targets at minimum cost. Rather, the most environmentally and economically effective way to address such pollution is to revisit existing local pollution laws and perhaps make them more stringent.

Some critics have offered a more fundamental criticism of cap-and-trade, claiming that it would fail to reduce statewide greenhouse gas emissions. To the contrary, by imposing a limit, a cap-and-trade system offers regulators unparalleled capabilities to ensure that a particular emissions target is met.

As evidence that cap-and-trade would not bring about real reductions, some have referred to Europe's Emissions Trading Scheme for greenhouse gas emissions. Indeed emissions did

not fall in the pilot phase of the ETS. But the pilot phase's main purpose was to test the system's design, not to achieve significant reductions. In the subsequent "Kyoto" phase of the ETS, which began this year, the cap has been tightened and the program is achieving significant reductions.

While much attention has rightly been given to the environmental effects of climate policies on low-income communities, it's also important to consider their economic impacts. Reducing greenhouse gas emissions will require greater reliance on more costly energy sources and more costly appliances, vehicles, and other equipment. Because low-income households devote a greater share of their income to energy and transportation, virtually any climate policy will place greater burdens on them. But because cap-and-trade will minimize energy-related and other costs, it holds an important advantage in this regard over conventional regulations.

A promising way to reduce economic burdens on low-income and minority communities

Moreover, a cap-and-trade system gives the public a tool for compensating low-income communities for the potential economic burdens: If some emission

allowances are auctioned, revenues can be used to mitigate economic burdens on these communities.

All in all, cap-and-trade serves the goal of environmental justice better than the alternatives. If California is intent upon moving forward with its ambitious climate policy, then cap-and-trade merits a central place in the arsenal of weapons the state employs. Beyond helping the state meet its emissions-reduction targets at the lowest cost, it offers a promising way to reduce economic burdens on low-income and minority communities.

Robert N. Stavins is the Albert Pratt Professor of Business and Government at the John F. Kennedy School of Government, Harvard University, and Director of the Harvard Environmental Economics Program. He can be reached at robert_stavins@harvard.edu.