

✖ Defying the trend in the rest of the country to ignore the perils of climate change, the California Air Resources Board voted today to establish the country's first economy-wide cap-and-trade program covering greenhouse gas emissions. The vote comes five years after the state passed sweeping legislation — [AB 32](#) — to roll California's carbon emissions back to 1990 levels by 2020. The cap-and-trade measure is one of a [series of initiatives](#) to help the state meet its emissions targets. Other measures include a [renewable electricity standard](#); energy efficiency measures; a low carbon fuel standard; auto efficiency standards that are now part of national policy; a ban on the importation of carbon-intensive fuels; and land use policies to encourage growth policies that limit greenhouse gas emissions.

The idea of cap-and-trade is a relatively straightforward one. A total amount of allowable pollution is set (the cap). Those subject to the cap are allocated allowances (in sum equal to the cap) that allow them to pollute (typically one ton per allowance, with the total number of allocated allowances equal to the cap). And emitters may meet their allocated amount in one of three ways. They may use all of their allowances. They may cut their pollution to levels below the amount they've been allocated and trade/sell the excess allowances to those who need them. Or they may pollute in excess of the amount of allowances allocated and make up the difference by purchasing allowances from those emitters who don't need all of theirs.

California's decision to adopt a cap-and-trade system to reduce greenhouse gas emissions - as part of an overall package to roll back our emissions to 1990 levels — is huge. The state's economy is the world's [8th largest](#), outranking Brazil, Russia, Canada, South Korea, India and Australia, among others. Thus in absolute terms getting the state transitioning to a low carbon economy is extremely important. But California also plays a role as environmental leader: what happens here can have an enormous influence on what happens in the rest of the country. If California can show other states and the rest of the country that a cap-and-trade system can result in reduced carbon emissions at a reasonable price the debate in Washington over climate policy might actually shift. And even if the feds ignore us, other states — who have largely turned away from vigorous climate regulation as the economy has soured — may join the California system. Finally, California's economy is big enough that a price on carbon, which will occur through the cap-and-trade system as emitters will need to hold allowances in order to emit greenhouse gases, may encourage the kind of technological innovation for which the state is rightly famous. Indeed we already [lead the country](#) in venture capital investments in clean energy. With the passage of cap-and-trade innovators are likely to increase their efforts to develop clean energy and reduce carbon emissions as greenhouse gas emitters seek new and cost-effective ways to meet their obligations under the program.

One other observation is worth making. CARB's leadership in devising and implementing an economy-wide policy to reduce greenhouse gas emissions has been extraordinary. The agency has met every deadline AB 32 imposed on it. CARB has had to ramp up its technological and regulatory know-how to cover policy areas the agency has never dealt with before, including land use policies, regulating through cap-and-trade and energy efficiency. It's faced a head-on attack on its regulatory efforts in the form of Proposition 23, which would have halted AB 32's implementation had it passed. Since 2006 when AB 32 passed the board has had [three](#) different Chairpersons, though most of the significant regulatory work has been done under the very effective leadership of current Chairwoman [Mary Nichols](#). It's common place to attack government as inefficient, bloated and even corrupt and California itself has borne more than its share of attacks as a place where government has gone awry. CARB defies those characterizations. Corny as it sounds, I'm proud today to be a Californian.