Those California environmental regulators: there they go again…

This past week, California's Air Resources Board adopted first-ever regulations requiring auto manufacturers to include sun-reflecting window glass for all cars and light trucks sold within the state. The new rules take effect in 2014.

It turns out that conventional vehicle windows waste a lot of energy. Existing windows allow substantial amounts of the sun's heat to enter the vehicle; motorists run their air conditioners to offset the resulting temperature increases, especially in warm-weather months and regions. And that has serious consequences for energy use and greenhouse gas (GHG) emissions: the ARB reports that about 5.5 % of the fuel burned in American passenger vehicles–7 billion gallons a year–goes to cooling those vehicles.

The "cool windows" mandated by the ARB, which use newly-available technology to reflect–rather than absorb–the majority of the sun's rays, can have a dramatic, positive effect on energy consumption. Federal researchers suggest that "cool windows" technology can cut the inside temperature of a car parked in the sun by up to 12 degrees. That translates into substantially reduced vehicular use of air conditioners, which in turn cuts overall vehicle fuel consumption by 1%.

And that means significantly reduced emissions of both conventional air pollutants and GHGs. The latter is critically important as California strives to reduce the state's aggregate GHG emissions under AB 32, California's landmark Global Warming Solutions Act.

Some conservative commentators have ridiculed the ARB's "cool windows" initiative as just another wacky, Left Coast phenomenon. (They've similarly attacked U.S. Energy Secretary Steve Chu's closely-related, "cool roofs" proposal, which the Nobel Prize-winning scientist helped perfect in his previous capacity as Director of the Lawrence Berkeley National Laboratory.)

Recall, however, that the ARB received similar criticism 35 years ago, when it mandated catalytic converters as a means of reducing smog-forming auto emissions. That California standard became a model that the entire nation, and much of the world, would eventually follow. It seems quite possible that the Golden State will demonstrate the same technological and policy leadership when it comes to cool windows.

Pretty cool, indeed.