

AB32 The Global Warming Solution Act

What it Means for California and How Everyone Can Help

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In September of 2006 in an effort to address climate change, Governor Arnold Schwarzenegger signed into law AB32, The Global Warming Solutions Act. This law requires California to reduce its greenhouse gas (GHG) emissions to 1990 levels by 2020. Further it requires that by 2050, the emissions be 80% below 1990 levels. This is no small or easy task! The 2020 goal requires a 25% reduction in GHGs, most of which comes from CO₂ generated from the burning of fossil fuel.

As part of the implementation of AB32, a scoping plan for the 2020 goal, now estimated to be a reduction of 174 MMT of CO₂ equivalents, was prepared and approved by the California Air Resources Board (CARB)*. This 140 page plan* details how California will meet this goal. While the whole plan is quite detailed and more than most may want to read, there are some general approaches which can be summarized.

Transportation is one of the major contributors to GHGs. (see pie chart of 2004 CA emissions**) and was one of the areas targeted in the scoping plan. Specifically an ~ 28MMT reduction is predicted to come from increased vehicle efficiencies and other new technologies through the implementation of the Pavley Act (AB1493). The EPA under the Bush administration did not allow the needed waiver for the implementation of Pavley. However, on May 19, 2009, the Obama administration announced proposed national mpg standards which basically will mimic Pavley and on June 30, 2009 the EPA granted the state the right to enforce Pavley. This will help make this portion of the scoping plan doable. Additional transportation measures in the scoping plan include increased efficiencies at ports, tire pressure programs, high speed rail, cargo handling, anti-idling and lower carbon fuel (LCFS).

Electricity generation for homes and industry is also a major contributor to greenhouse gases. An estimated ~ 21 MMT CO₂ is projected to be saved from the implementation of a renewable portfolio standard with a 33% renewable mix by 2020. Efficiency is very important as well and a 15MMT reduction is forecast to come from electricity energy efficiency measures.. Also contributing to this effort is the million solar roofs program, solar hot water, and a green buildings program.

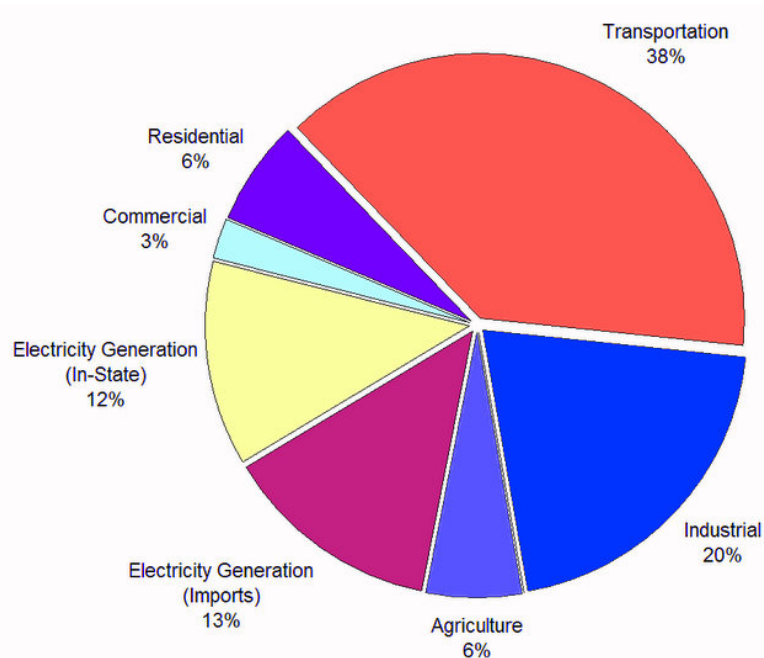
Another center piece of the scoping plan is a cap and trade program that is scheduled to deliver a 34 MMT savings. This program is proposed to co-operate with the Western Climate Initiative.

Other gases besides CO₂ also contribute to the GHG effect. Many of these gases have a higher warming potential than CO₂. Proposals to address these gases include methane capture from land fill and limiting or replacing some of the high GWP potential gases that are used both in various refrigerants as well as some manufacturing processes.

Water is an issue both for availability as well as the energy required to obtain and move it. There are proposals related to water efficiency and water recycling in the plan. Recycling in general and forest management is also addressed in the scoping plan. Overall the scoping plan examined all sectors for reductions.

Looking at this one may ask how I can help in what I do on a daily basis in my life. In our transportation choices can we use less energy? This could be from a more efficient car, a better tuned and maintained car or by using public transportation. Additionally, human powered transportation such as walking or bike riding is a good option. In our homes can we use less energy? This could entail a new more efficient refrigerator, LED lights for the Christmas tree, better insulation around the windows, etc. Also this could include renewable energy such as solar panels or solar hot water, either for the home or for the pool. There is a website, <http://www.coolcalifornia.org/> , sponsored by the CARB, CEC and researchers from various labs at UC Berkeley and Lawrence Berkeley labs. It allows one to calculate ones personal carbon footprint (<http://www.coolcalifornia.org/article/carbon-calculator>). It has various transportation options and one can see how ones emissions change if one drives a car vs. takes public transport. One can see how much a plane flight of 1000 or 10,000 miles generates. So you can see where you are now and how various changes could make a difference. The goal of reducing greenhouse gases will not be easy, but if we all address the issue, we can make a difference.

2004 California GreenHouse Gas Emissions Sources



* <http://www.arb.ca.gov/cc/scopingplan/document/psp.pdf>

** <http://www.arb.ca.gov/cc/inventory/data/graph/graph.htm>