

In 2006, California passed into law Assembly Bill 32 (AB 32), the Global Warming Solutions Act, which requires the state to reduce its global warming pollution approximately 12 percent below current levels by 2020. The California Air Resources Board (CARB) is designing a mix of policies to reach this target.

The proposed policies for reaching the 2020 emissions target include:

- Renewable energy standards
- A requirement to lower global warming emissions from transportation fuels
- Stricter efficiency standards for buildings, appliances, and vehicles
- A carbon cap and pricing program that would limit emissions from the state's largest global warming pollution sources

Study Findings

This study examines how the policies used to reach the state's 2020 emissions-reduction target are likely to affect California cities, focusing in depth on the potential impacts of these policies on Chula Vista, a mid-sized city in San Diego County whose characteristics typify many such cities in the state (see the box below). The study reveals that AB 32 is expected to have a minimal impact on Chula Vista and other cities, as most local governments

Chula Vista Case Study: Background

Chula Vista is the second-largest city in San Diego County, and is home to approximately 250,000 residents. The city government provided us with detailed data on its energy expenditures—including electricity, gas, and transportation fuel use—for the last several years. We used these data to develop a simple cash-flow model to project Chula Vista's expected future revenues and costs through 2020 under business-as-usual conditions. We compared the business-as-usual projections with alternative projections that also account for Chula Vista's proposed energy-efficiency plans and other climate-protection



measures. We then applied to the alternative projections the changes in direct and indirect energy costs from implementation of the state's clean energy policies.

are not very energy-intensive—i.e., energy expenditures are only a small share of a locality's total budget. The study projects that while the state's clean energy policies will cause the price of energy to rise slightly, the energy expenditures represent a relatively small share of the California economy overall, and thus the rise in energy costs will result in very modest changes in economic activity throughout the economy. The indirect impact on Chula Vista and other cities, in turn, will be very small. Both the direct and indirect effects of AB 32 will have a barely noticeable impact on residents—Chula Vista's budget, for example, would be fully restored by collecting just \$1.97 more per year from each resident by 2020, less than the cost of a cup of coffee.

Crunching the Numbers

Under a business-as-usual scenario (i.e., without implementing any AB 32 clean energy policies), prices for electricity, transportation fuel, and natural gas are expected to increase 43 percent, 58 percent, and 71 percent, respectively, in California over the next decade. Chula Vista currently spends about 1.7 percent of its revenue on energy. Without implementing any AB 32 clean energy policies, but including aggressive energy efficiency measures Chula Vista has put in place to reduce its energy use, the city's spending on energy would increase about 25 percent (to 2.1 percent of total revenue) in 2020. Implementing AB 32 policies would increase this spending by less than 2 percentage points (to 2.3 percent of total revenue) by 2020.

These findings are very conservative in that they ignore the prospect that clean energy policies will lead to the creation of new businesses, jobs, and economic value that could more than offset the increase in energy costs. Local economic effects of energy efficiency retrofits and other locally implemented initiatives are not captured in the analysis. The analysis also does not take into account that if emissions continue unabated, Chula Vista and other cities may incur substantial costs as they prepare for and adapt to higher sea levels, increased heat, and other consequences of climate change. If this happens, the costs to cities from global warming may turn out to be much higher than the cost of implementing AB 32.

The full text of this study is available online at www.ucsus.org/lab32cityecon.