EXECUTIVE SUMMARY

# The Economic Impact of AB 32 on Small Businesses: An Update

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.

Neither AB 32 nor CARB will directly regulate or impose fees or taxes on any small business. 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

In the December 2009 report *The Economic Impact of AB 32 on California Small Businesses*,* *The Brattle Group* found that potential changes in energy prices caused by AB 32 would have only a minor impact on California's small businesses, most of which are not energy-intensive—including those accounting for the most employment. On average, these 700,000+ small businesses currently spend only 1.4 percent of their revenues on energy. A detailed case study of an actual energy-intensive business, Santa Monica's Border Grill restaurant, found that the restaurant could compensate for the estimated increase in energy costs related to AB 32 by adding just three cents to an average $20 check in 2020.

### Introducing Mercado International 2000

Mercado International 2000 is a mid-sized supermarket and tortilla production facility located in the greater San Diego area. The store is well established in its location, having been family-owned and operated since 1995, and sells ready-made Mexican food from a menu, along with groceries, tortillas, bakery items, and specialty products from Central America. Its owner, Gerardo Herrera, is a second-generation grocery store owner. Mercado meets the Small Business Administration (SBA) definition of a small business in terms of both size and sales: it employs 30 people and its annual revenues are below the SBA's $7 million threshold.

Food and beverage stores like Mercado employ 111,002 Californians, comprising about 1.5 percent of the state's total employment. These stores spend roughly 2.1 percent of their revenue on energy, compared with less than 1.4 percent for all California small businesses on average. We selected Mercado, a small business with above-average energy intensity in a highly competitive industry, to ensure our study would provide a conservative estimate of AB 32's potential economic effects.

## New Study Findings

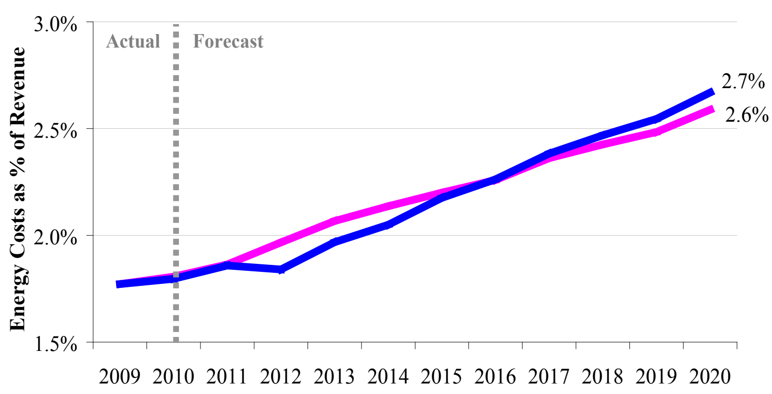
This update to our 2009 report incorporates newly available energy market data and a new small-business case study, which operates in a different economic sector and geographic area than the Border Grill. We deliberately chose the Mercado International 2000 grocery store in Chula Vista because of its higher-than-average energy intensity (see the text box below). And, to ensure a conservative estimate (or even overestimate) of AB 32's economic effect, we used price and cost inputs that, while plausible, reflect a relatively expensive and pessimistic set of outcomes.

We found that AB 32 will not significantly impact Mercado, despite the fact that grocery stores are a highly competitive sector. Even using pessimistic assumptions about energy price increases, the entire impact of AB 32 on the grocery store can be completely offset by retail price increases of, at most, 0.1 percent—so small as to be virtually unnoticeable to customers.

## Crunching the Numbers

In making financial projections for Mercado, we used the business's financial records from 2007 to 2010 and publicly available data on energy prices and other relevant factors. We assumed that Mercado would invest in three cost-effective efficiency upgrades financed through zero-percent-interest loans or "on-bill financing" through the store's electric utility (with no up-front cost to the owner). All these upgrades would pay for themselves in less than five years (see the text box at left). The upgrades would cover:

- General lighting
- Cooler and freezer lighting, fans, and monitoring equipment
- Refrigeration (including three walk-in coolers, a walk-in freezer, and three 40-foot glass-front display cases)




Mercado International's energy costs as a share of the store's revenue over time. The pink line shows energy cost without AB 32. The blue line shows costs with AB 32.

Next, we projected changes in energy costs resulting from AB 32 policies compared with business-as-usual (BAU) energy costs. Relative to BAU, we project AB 32 will increase electricity costs 2.46 cents per kilowatt-hour (12 percent) and natural gas costs 21 cents per therm (15 percent) by 2020. Gasoline costs are projected to increase 37 cents per gallon (9 percent) by 2020.

Finally, we assumed Mercado would pass these cost increases on to its customers via price increases.

**Energy Efficiency Measures—and How to Pay for Them**

Like most store owners, Gerardo Herrera (right) is fully aware of the costs of his energy use, but uncertain about what efficiency measures are available and cost-effective, and what kinds of financing programs are available to implement them. Cash flow is a key barrier for most businesses, so financing offered at zero percent can mean the difference between a small business taking no action or investing in more-efficient equipment by using the energy cost savings to pay the monthly loan charges.

For this analysis, we assumed that Mr. Herrera would take advantage of "on-bill financing" (OBF) provided by his electric utility, SDG&E. OBF is a utility-based method of providing seamless, zero-percent-interest financing through the monthly power bill for business or government energy efficiency improvements. All the publicly owned utilities in California now offer OBF.

We also assumed that Mr. Herrera would take advantage of incentives and rebates offered by SDG&E for more-efficient lights and refrigeration units. Many utilities throughout the state offer similar incentives.

One of the most interesting efficiency measures Mr. Herrera could adopt creates savings through cooler- and freezer-door heater controls, evaporative fan speed controls and electronic fan motors, and an Internet-based real-time monitoring and control system called Remote Site Manager. This system allows coolers and freezers to be viewed via an Internet "dashboard" showing operating characteristics such as temperatures and run times of various refrigeration components. Alarms can be set that alert the user via cell phone when temperatures rise above a certain level.

With a 16,000-square-foot flat-roof surface, Mercado is in prime position to take advantage of rooftop solar photovoltaic (PV) panels. We did not include solar PV in this study, however, as Property Assessed Clean Energy (PACE) loans, net metering, and other policies that could assist with funding have yet to be finalized. Mercado may be a candidate for both renewable energy and other energy efficiency improvements once federal stimulus funds enable these programs to be developed in the San Diego area.

—Hank Ryan
Executive Director, Small Business California

## Results

As stated above, we found that Mercado could completely offset the cost impact of AB 32 with a minor price increase. For example, Mercado currently sells a pound of tortillas (roughly 20) for 59 cents; customers who buy a pound each week therefore spend roughly $30 per year. Under AB 32, Mercado's customers would only have to spend an additional 3 cents per year. This increase pales in comparison to the effect of inflation over 10 years: a typical increase of 2 percent per year would add $6.57 to the average $30 bill.

The small price increase we project under AB 32, if perceptible at all, is very unlikely to lower Mercado's sales or adversely affect its customers, especially since its competitors will likely be affected by AB 32 in the same manner (and have to increase their own prices). This result is consistent with the case study in our 2009 report, which also showed that price increases required to offset the estimated cost of AB 32 are likely to be imperceptible or, more conservatively, rather small.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* This report is available online at *www.brattle.com/Brattle_Economic_Impact_of_AB_32_Report*