

New Economy cities: Fort Collins builds on clean tech

As Fort Collins, Colo., moves to become a clean-tech city, its businesses are finding green opportunities from solar cells to engine conversion.

By [Ron Scherer](#) | Staff writer/ November 20, 2009 edition

Fort Collins, Colo.

Melanie Sloan, a soot-covered lab technician, is trying to boil water to help save lives. But Ms. Sloan isn't concerned with the liquid.

On a recent day, she's in her lab steadily shoving firewood into a pipe-like stove that is heating the water. The stove is similar to those used by villagers around the world. The difference is that hers uses less fuel and produces much less carbon monoxide – a deadly gas that kills thousands of people each year.

The goal for Sloan and the nonprofit firm she works for, Envirofit, is to sell the stove in places such as India and Africa and dramatically clean up indoor air.

They hope to produce 10 million over the next five years.

Sloan's effort in some ways illustrates one reason Fort Collins is positioning itself as a city of the future: It's staking out a position as a nexus of clean and renewable energy.

Town fathers have been cobbling together businesses with Colorado State University (CSU) professors loaded with ideas. Today, in the shadow of the Rocky Mountains, labs are doing everything from extracting oil from algae to producing überefficient engines that use lasers instead of spark plugs.

The slew of ideas has energized the business community, including a local beer company that is recycling the methane from its waste products for other businesses to use. "The city has undergone a substantial restructuring of itself from high-tech manufacturing, through the dotcom era, to one focused on research and development and production in the clean-energy sector," says Martin Shields, a professor of economics at CSU.

Perhaps it's not surprising Fort Collins has reinvented itself, particularly in a green way. At least 50 percent of the 140,000 residents have a four-year college degree or more. The city prides itself on encouraging alternative modes of travel: It maintains a "bike library" for residents who want to borrow a Schwinn or Trek for up to a week. As in other parts of Colorado, residents here just north of Denver enjoy an active outdoor lifestyle.

The city is eager to be a model for others, including one of the first in the nation to create a downtown section, called FortZED, that generates as much energy as it consumes. It has fitted buildings with micro wind turbines, solar panels, and fuel cells, as well as encouraged energy-saving measures. City officials believe this is one reason Fort Collins just won a federal grant of \$18 million to help establish a "smart grid," which will further reduce energy consumption.

Some local firms have diversified into clean tech. One called Woodward used to make speed controls for trucks. Now it's working on converting diesel engines to compressed natural gas.

Other companies started from scratch, born out of work at CSU. A new \$100 million solar-cell plant sprang from one professor's lab. A lithium-battery factory came from another's. "CSU is the innovation engine that churns out a lot of the new ideas," says Bryan Willson, a mechanical engineering professor involved in several ventures, including Envirofit.

More green revolutionaries may be on the way. "We're pursuing and targeting clusters of companies involved in clean energy," says Doug Hutchinson, the city's mayor.



Ryan Burke/City of Fort Collins

Melanie Sloan of Envirofit holds the core of a direct-injection retrofit technology that dramatically cuts the emissions of Asia's auto rickshaws.



[Photo Gallery: Boomtowns](#)