

CASE STUDY | AURORA, COLORADO

AURORA (population 325,078) made sustainability a priority in its [2009 Comprehensive Plan Update](#). The city added a [Sustainability Plan](#), which set goals for energy efficiency, renewable energy, and economic growth. Over the last several years, the city has taken steps to go solar that address all of these action areas. Currently, the city has three 100kw solar photovoltaic (PV) systems on city buildings. These are located on the Aurora Municipal Court, the Sand Creek Water Reuse Facility, and one of the North Facilities Buildings. All three were financed with power purchase agreements (PPAs). The city also has several solar thermal installations, including installations on Fire Station 10 (an EECBG funded installation) and the Beck Recreation Center, and Aurora's first solar installation on the Meadow Hills Pool. The first two installations are the result of the city's green building ordinance, which requires that building retrofits attain LEED certification. The city is currently completing a solar thermal installation on another fire station.



A 100 kw solar PV installation on Aurora's municipal court building is financed through a power purchase agreement.

Aurora received funding through the American Recovery and Reinvestment Act, and used some of these funds to incentivize solar by providing a rebate on permit fees. The state of Colorado currently caps permit fees at \$500.00 for a residential installation and \$1000.00 for a commercial installation.

In order to qualify for the permit incentive, residents and businesses were required to undergo an energy audit. These energy audits help make sure that buildings are performing as efficiently as possible and determine optimal system size. Xcel Energy, the local investor-owned utility, provides a subsidized energy audit, available at three levels: standard audit, standard audit with blower door, and infrared camera audit. While the permit incentive program was active, the city would pay for the mid-level audits, while recommending the highest-level audit, so residents could make their homes as energy efficient as possible.

The permitting incentives are no longer available, but the city's permitting process is very clear and plan submittal check lists for both [residential](#) and [commercial](#) systems are available online. "We make it pretty easy and we provide training to our plans examiners and inspectors to make sure that everything is streamlined," said Karen Hancock, Aurora's Environmental Program Supervisor.

In addition to having a streamlined permitting process, Aurora has worked to revise zoning codes to address solar. Renewable energy was largely absent in the city's code, and one of the planners in the zoning and development review department worked to develop a new renewable energy code that addressed both wind and solar. For solar, the revised code addresses both solar PV and solar thermal, and set standards for solar as a principle and accessory use, and for rooftop and ground-mounted systems. Industry partners were involved in reviewing the new standards to ensure that they would not pose barriers to solar adoption. "This was another thing we did that was very proactive and that other jurisdictions in the region have used as a guide for their own code updates," Hancock noted.

To evaluate renewable energy projects and plans, Aurora has a Renewable Energy Projects and Sustainability Task Force (REPS), which consists of staff from all departments. Staff present projects to the committee to discuss them in order to provide internal access and transparency in decision making. For example, the city's water utility was interested in a solar installation to offset energy usage, but the land on which they wanted to install the panels was covered by the parks master plan and needed to remain open to the public.

REPS provided a forum for these issues to be addressed.

Aurora is also investing in bringing the solar industry to the community with the Aurora Campus for Renewable Energy (ACRE). The city purchased 1,762 acres of land near the Denver International Airport with noise violation payments from the airport. The land had been zoned for residential development, and due to the air craft noise, the city wanted to rezone the area for other uses. In 2008, Aurora completed the ACRE Framework Development Plan, which sets the goal of becoming “the premier US site for research and development pertaining to renewable energy, particularly solar energy.”



Solar panels at Solar TAC on the Aurora Campus for Renewable Energy.

Currently, the Solar Technology Acceleration Center (SolarTAC), the largest test facility for solar energy technologies in the country, is leasing 75 acres on the campus, which it uses to host different companies to test components of solar energy systems. The site allows system components to be tested in either a proprietary manner or in a demonstration capacity.

The city has plans to extend its water and sewer infrastructure to ACRE to facilitate future development on the campus. Aurora also plans to rehabilitate natural corridors on the site, which includes the Coyote Run and Box Elder Creek floodplains, and maintain space on the site for parks and open space, with the goal of making it a destination open to the public with solar demonstration activity.

“Whenever we have the opportunity to further the manufacturing, the development, the research, our city council and mayor are so supportive of it,” Hancock noted. “Our elected officials and economic development officials are always working to get that industry into Aurora.”

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