ENVIRONMENT MASSACHUSETTS
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Renewable Communities

Massachusetts cities and towns leading the way to 100% renewable energy

Worcester: Municipal solar installations

Massachusetts has been a national leader in solar energy for years, and the Commonwealth's second largest city, Worcester, has set the pace for the rest of the state on municipal solar installations.

Between 2011 and 2017, Worcester built 15 municipal solar arrays, including eight installations at the city's public schools.[1] As part of this project, the roofs of six schools were coated with a white sealer, which extends the life of the roof while reducing the amount of energy needed to cool the building in the summer. Additionally, by reflecting more light, the white roofs increase the output of rooftop solar panels by 10 to 15%.[2]

Worcester's largest municipal solar installation went online in 2017.[3] Built on the capped Greenwood Street Landfill, the project covers 25 acres and includes more than 28,600 solar panels. The 8.1-megawatt installation generates enough electricity to power 1,340 homes annually and eliminate 7,475 metric tons of carbon per year, the equivalent of avoiding 18 million miles of driving.[4]

At the time of its construction, the Greenwood solar plant was the largest municipal solar installation in New England. The Greenwood solar installation is projected to recoup the city around $70 million dollars during its 30-year lifespan.[5]

In addition to these solar projects, city officials have taken steps to reduce energy consumption in municipal buildings. Worcester completed these projects through an energy savings performance contract, which enables a municipality to pay for the cost of energy efficiency improvements with the money saved from reductions in energy use.[6] Energy efficiency upgrades have included insulation, weather sealing, and energy management control systems. The city has also converted all 14,000 of its streetlights to efficient LED fixtures.[7]

1. "Municipal Solar Installations," Worcester Energy, <http://www.worcesterenergy.org/leading-by-example/renewable-energy/municipal-solar-installations>.
2. "2015-2016 School Solar Projects," Worcester Energy, <http://www.worcesterenergy.org/leading-by-example/renewable-energy/municipal-solar-installations/2015-2016-school-solar-projects>.
3. "Largest solar array on a municipally-owned landfill in New England," Borrego Solar, <https://www.borregosolar.com/commercial-solar-systems/worcester-solar-landfill>.
4. "Take a look at the 28,600 solar panels that are going to save Worcester $60 million," Melissa Hanson, MassLive, 17 August 2017, <https://www.masslive.com/news/worcester/2017/08/take_a_look_at_the_28600_solar.html>.
5. "Solar Farm on the former Greenwood Street Landfill," Worcester Energy, <http://www.worcesterenergy.org/leading-by-example/espc/espc-amendments/solar-farm-former-landfill>.
6. "What is an ESCO and an ESPC?," Worcester Energy, <http://www.worcesterenergy.org/leading-by-example/espc/what-is-an-esco-and-an-espc>.
7. "ESPC Step C - Project Implementation," Worcester Energy, <http://www.worcesterenergy.org/leading-by-example/espc/project-steps/step-c-implementation>.