



# Renewable Communities

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

## Lexington: 100% renewable schools

Lexington has made significant progress on initiatives to reduce carbon pollution, particularly when it comes to solar energy.

In May 2017, a solar project at the Lexington Composting Facility was completed, consisting of a 1.4-megawatt ground-mounted installation and two 400-kilowatt solar canopies. The energy generated by this project is projected to match 45% of municipal electricity use, saving the town \$19 million in energy costs and creating an additional \$8 million in associated health benefits from emissions reductions over the lifetime of the project.<sup>1</sup> Town officials have also installed solar panels on the roofs of five school buildings and the library. A real-time monitoring system of the solar installations' output allows members of the public to witness the impact of their investment in solar infrastructure.<sup>2</sup>

Residents and local leaders are continuing to move Lexington closer to 100% renewable energy. The town's Getting to Net Zero task force is charged with developing plans to reduce emissions from residential, commercial, and municipal buildings, and increase the percentage of the town's electricity from renewable resources.<sup>3</sup>

In Lexington, 66% of greenhouse gas emissions come from buildings, many of which use far more energy than necessary.<sup>4</sup> Town officials have decided to lead by example in the construction of two highly efficient school buildings powered by solar panels.

In 2017, the Board of Selectmen approved the construction of the Lexington Children's Place and the Hastings

School. The Hastings School, a 110,000-square-foot school serving 645 students, will be heated and cooled with a geothermal system. A solar installation combined with energy storage will meet the school's electricity demand. The Lexington Children's Place, a smaller facility, will also include on-site solar panels, along with air source heat pumps for heating and cooling and an energy storage system.<sup>5</sup> Construction has begun, with the Lexington Children's Place slated for completion in 2019 and the Hastings School in 2020.<sup>6</sup>

1. "Lexington will save \$19 million with new solar farm," Wicked Local Lexington, 18 May 2017, <<https://lexington.wickedlocal.com/news/20170518/lexington-will-save-19-million-with-new-solar-farm>>.

2. "Solar in Lexington," Town of Lexington, <<https://www.lexingtonma.gov/public-facilities/solar-lexington-0>>. "Harrington Elementary School - Solar Panels," Draker, <<https://solarems.net/kiosks/319>>.

3. "Is Lexington's Future RENEWABLE?," Mark Sandeen, Colonial Times Magazine, <<https://colonialtimesmagazine.com/is-lexingtons-future-renewable/>>. "Getting to Net Zero Task Force," Town of Lexington, <<https://www.lexingtonma.gov/sustainable-lexington-committee/getting-net-zero-task-force>>.

4. Ibid.

5. "Lexington's Renewable Future: Getting to Net Zero Emissions Roadmap & Recommendations," Integral Group and Sustainable Performance Institute, 1 March 2018, <<https://lps.lexingtonma.org/cms/lib/MA01001631/Centricity/Domain/231/5-8-2018%20SC%20Packet.pdf>>.

6. "Lexington Children's Place," Dinisco Design, 19 June 2018, <<https://www.dropbox.com/s/qloby7mzow9eabo/LCP%2018-06-19%20SC%20Mtg.pdf?dl=0&raw=1>>. "Maria Hastings Elementary School," Dinisco Design, 19 June 2018, <<https://www.dropbox.com/s/89pnckfjoprga1f/Hastings%20SC%20Mtg%2018-06-19.pdf?dl=0&raw=1>>.