

Back To The Future, Episode Four: Cool Industry for A Cooler Planet  
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A Series from Sea Change Radio

In this fifth episode of our [Back To The Future series](#), we look at how the mighty power of the Connecticut River fueled the birth of manufacturing in Massachusetts — and the country — not just in producing finished goods, like paper and textiles, but also in making the machinery that drove the mills. We hear from Jim Lavelle, manager of [Holyoke Gas And Electric \(HGE\)](#), a hydroelectric power company. He tells us how Holyoke's industrial past points the way to the future. HGE's Calvin Ellis takes us on a tour of the hydroelectric plant at the South Hadley Falls. [Robert Farrant](#), professor of regional economic development and sustainability at UMass-Lowell tells us about machine tool manufacturing in the 19th century and the lessons that holds for today. And we also hear about Holyoke's industrial history from [Penni Martorell](#), archivist of the Holyoke Public Library and Charlie Lotspeich, Park Supervisor at [Holyoke Heritage State Park](#).

The Connecticut River has always been a vital resource for the people who have lived along its banks. [Early indigenous people](#) used it for transportation, fishing, and farming, as did the early settlers. And local merchants use the river to transport their goods. But the high falls at south Hadley presented an obstacle to transport up the river from port cities further south. So locks and canals were built to get around the falls and keep the goods moving north.

In 1858 George Ewing and the Boston Associates, who developed Lowell as an industrial city, turned their attention to Holyoke. There was a 59 foot drop in the river there, making it a [perfect place to build a dam](#), while the sloping land and the bend in the river made it an ideal site for a hydro-powered city, [complete with canals](#).

Holyoke's mills depended on a thriving machine tool industry that began in Springfield just a few miles south on the Connecticut River. It soon spread upriver to Holyoke itself. A former Springfield machinist himself, Robert Farrant tells us how the industry got started in the early days after the American Revolution, incubated by the [Springfield Armory](#).

But industry fell on hard times in the Connecticut River Valley. It started first in Holyoke in the 1920s and culminated in a wave of arsons and plant closings in the 1960s and 1970s. It was all part of the de-industrialization of the northeast, a victim of globalization. But Holyoke Gas and Electric's Jim Lavelle tells us that machine tooling could come back strong to Holyoke, especially as the cost of fossil fuels skyrocket, crimping transportation costs and encouraging more local manufacturing. With a [revival of intercity rail](#) planned along the banks of the Connecticut River, and a [new green data center](#) to be built in Holyoke, prospects are looking up for a revitalized, sustainable, manufacturing economy in western Massachusetts.

Back to the Future is a Sea Change Radio series looking at what the past can teach us as we transition to a more sustainable, lower carbon future. The series is funded in part by [Mass Humanities](#), which receives support from the Massachusetts Cultural Council and is an affiliate of the National Endowment for the Humanities.