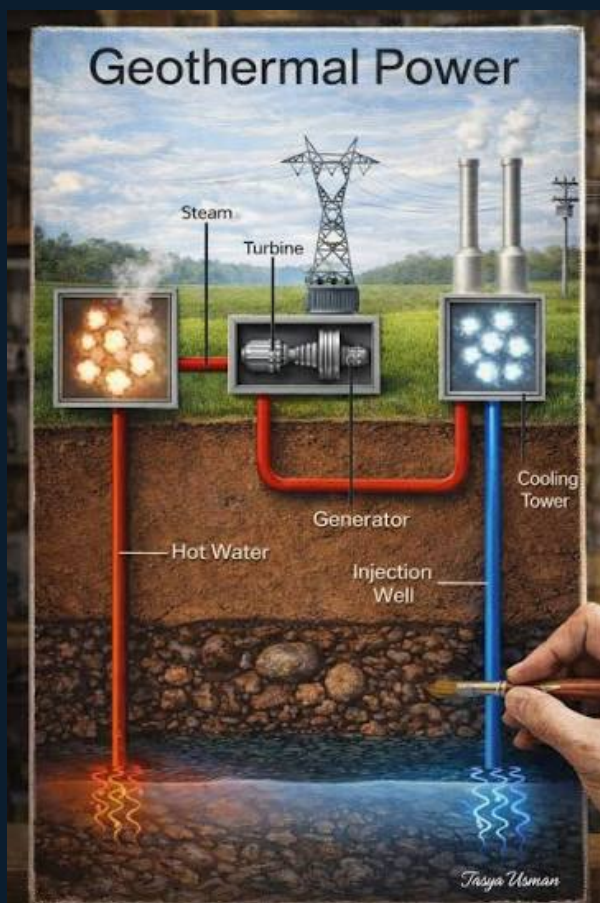


G E O T H E R M A L E N E R G Y

The Team Digging Massachusetts Out of Fossil Fuels, One Borehole at a Time



“The future belongs to those who show up for it.”

NORTHEASTREC.ORG

G E O T H E R M A L

The Team Digging Massachusetts Out of Fossil Fuels, One Borehole at a Time

HEET, Eversource, Haley and Aldrich, RYGAN and Skillings and Sons

In 2017, a small Boston nonprofit walked into a room full of gas utility executives with an idea that sounded almost too simple. Instead of pumping gas through aging pipes to heat homes, why not let utilities deliver heat itself, pulled straight from the ground.

That nonprofit was HEET, the Home Energy Efficiency Team. The idea was networked geothermal. Nearly a decade later, it is not a theory anymore. It is running underground in Framingham and it is powering some of the most ambitious buildings in Boston.

In June 2024, Eversource switched on the nation's first utility owned networked geothermal system in Framingham, a roughly 15 million dollar network of ground source heat pumps that heats and cools 36 buildings without burning a single molecule of fossil fuel. The project was built through a partnership between Eversource, the City of Framingham and HEET, whose Executive Director Zeyneb Magavi has described the thermal energy beneath our communities as a shared resource that can carry an entire neighborhood off gas together. The system is already expanding. In late 2025, HEET secured an 8.6 million dollar grant from the U.S. Department of Energy's Geothermal Technologies Office to build a second geothermal loop connected to the first, with Eversource aiming to have it installed in 2026.

While Eversource and HEET have been proving out geothermal at the neighborhood scale, a different team has been proving it out building by building. Boston University's Center for Computing and Data Sciences, which opened in 2022 as Boston's largest fossil fuel free building and BU's first LEED Platinum certified building, runs on a geothermal system that covers roughly 90 percent of the 19 story tower's heating and cooling needs. Haley and Aldrich, the Boston based geotechnical engineering firm founded in 1957, designed and led installation of that system. RYGAN manufactured the closed loop piping running deep beneath the building. Skillings and Sons, a third generation family owned well drilling company based in Massachusetts and New Hampshire, drilled the boreholes, work so demanding it requires a drill rig that stands 36 feet tall and weighs 35 tons.

That same worksite has become something more than a construction project. HEET, in partnership with the International Ground Source Heat Pump Association and the Geothermal Drillers Association, has used sites like BU's to train a new generation of geothermal drillers, giving students hands on experience watching 1,500 foot boreholes get drilled and RYGAN pipe installed in real time. One graduate of that first training cohort went on to work for Skillings and Sons, closing the loop between the people teaching this trade and the people doing the work.

None of this happens quietly or cheaply. Drilling rigs cost close to a million dollars. Feasibility studies alone can run into six figures. But every team involved, the nonprofit that pitched the idea, the utility that built it at scale, the engineers who designed it, the manufacturer who supplied it and the drillers who put it in the ground, kept showing up anyway. That is what it actually looks like to build a new industry in New England, one borehole at a time.

PARTNER SPOTLIGHT

Wakefield Municipal Gas and Light Department

A Small Town Utility That Built Something the Whole State Is Watching

Some of the most important clean energy work in Massachusetts is not happening at a big investor owned utility. It is happening in Wakefield, at a municipal gas and light department most people outside the town have never heard of.

The Wakefield Municipal Gas and Light Department set out to solve a problem that keeps school administrators up at night. What happens to students and staff when the power goes out. Rather than accept the risk, WMGLD is building a 5 megawatt battery storage system paired with rooftop solar to create a microgrid that will keep Wakefield Memorial High School and Northeast Metropolitan Regional Vocational High School powered no matter what the grid is doing and can serve as an emergency shelter for the wider community when it matters most. Switchgear delivery and microgrid controls work is continuing through this year, with WMGLD hosting a tour of the site for utility peers from across the country during the APPA National Conference in Boston this June. The project is projected to save WMGLD ratepayers 20 million dollars over its lifetime just by shaving peak demand.

The Commonwealth noticed. In December WMGLD received a Leading by Example Award from the Massachusetts Department of Energy Resources. This year the project is a nominee for Project of the Year at Massachusetts Clean Energy Week.

What does not always make it into the press release is how much heart went into the planning. In meetings with our team, WMGLD's David Polson and Olivia Hayes talked about eliminating diesel generators for good and about applying for a UMass Lowell grant to build educational tools so students at both schools can learn hands on how a microgrid actually works. They talked about wanting other municipalities across Massachusetts to be able to copy what they built. This was never just about keeping the lights on. It was about turning a utility project into a teaching tool for the next generation of engineers, electricians and energy leaders coming out of Wakefield's own classrooms.

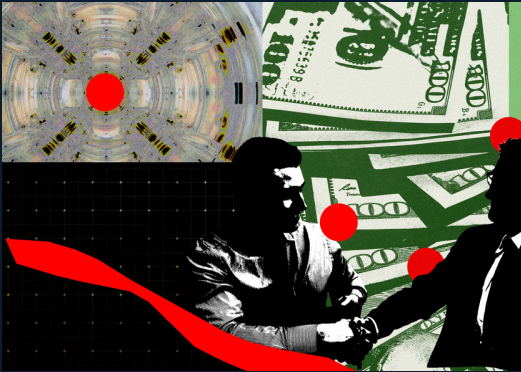
None of it would run without the crew who did the hands on work of bringing it to life. Milton CAT's MC2 Renewable Energy Services division has been on site handling the interconnection and generator work that keeps the whole system resilient, engineering, building and operating solar, storage and microgrid projects across the Northeast as a full time specialty. Their work on Wakefield's project helped earn MC2 a nomination for Large Business Innovator of the Year at Massachusetts Clean Energy Week.

Two nominations, one small town utility and one crew of specialists who show up and get it done. If you want to see what the future of the New England grid looks like at the community level, look no further than Wakefield.

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NEWS CORNER



Commonwealth Fusion Systems Raises 1 Billion Dollars in Largest Massachusetts VC Deal in Years

Commonwealth Fusion Systems, based in Devens, Massachusetts, raised 1 billion dollars in new funding, bringing its total capital raised to 4 billion dollars. The round was the largest venture capital deal in Massachusetts in nearly three years and will help finish the company's SPARC demonstration reactor while supporting planning for its first commercial fusion plant. Cofounder and CEO Bob Mumgaard said what used to feel impossible now feels more and more inevitable.

heatmap.news



New Massachusetts Program Could Pay EV Owners Thousands to Sell Power Back to the Grid

A new vehicle to grid pilot funded by the Massachusetts Clean Energy Center will install 60 bidirectional charging systems in participating homes, allowing electric vehicle owners to send power back to the grid during periods of high demand and get paid for it. The program is one of the first real world tests of whether EV batteries can become a reliable resource for utilities during peak hours.

bostonglobe.com



Solar Powered EV Carshare Pilot Launches Across Four Massachusetts Communities

A new pilot called CommunityEV Carshare launched with discounted hourly EV rentals in Boston, Chelsea, Framingham and Quincy. Each vehicle pairs with a solar powered charging station from Beam Global, allowing charging capacity to be deployed quickly without digging trenches or going through a lengthy grid interconnection process. Zipcar waived its application fee and lowered its annual membership cost to make the vehicles more accessible.

canarymedia.com



A Test Drive of the Under 25,000 Dollar EV Turning Heads on New England Roads

Slate Auto's new electric pickup, a stripped down, customizable truck starting under 25,000 dollars, has begun showing up on local roads, including a test drive around Newport, Rhode Island. With no touchscreen, no power windows and a price that undercuts most competitors, the truck could be exactly what the slumping EV market needs to bring more first time buyers into electric vehicles.

bostonglobe.com

“WHAT IS THE USE OF A HOUSE IF YOU HAVEN'T GOT A TOLERABLE PLANET TO PUT IT ON?”

– HENRY DAVID THOREAU