Sustainability Fellowship
Renewable Energy Research and Planning
Hypertherm, Inc.
Hanover, NH

About the Sustainability Fellows Program:
UNH Sustainability Fellowships pair exceptional students from across the U.S. with municipal, educational, corporate, and non-profit partners in New England to work on transformative sustainability initiatives each summer. Sustainability Fellows undertake challenging projects that are designed to create an immediate impact, offer a quality learning experience, and foster meaningful collaboration. Fellows work on-site with their mentors at partner organizations for 10 weeks, supported by a network of Fellows, partners, alumni, and the UNH Team. Graduate students, exceptional undergraduate students, and recent graduates from any accredited college or university are eligible to apply.

A detailed description of one Fellowship follows. To learn more about the other Fellowships offered this year, and for application instructions, see: www.sustainableunh.unh.edu/sustainability-fellows.

About the Fellowship:
Hypertherm is a mission driven, employee owned manufacturer in New Hampshire. We are 1400 associate-owners providing innovative solutions for industrial cutting customers globally, while promoting the well-being of our associates and enriching our communities and environment.

Hypertherm has an overarching carbon footprint reduction target, driven by minimizing impacts from waste, energy, and transportation. While we purchase 100% renewable energy credits for our US based operations, we do not have renewable or on-site generation infrastructure at any of our global locations. The latest solar feasibility study (for our NH facilities) was completed in 2016. The report stated that with 100% rooftop coverage, we would generate only 3% of our electricity needs. We decided at that time that funds would be better spent on continued efficiency projects, and that we would defer on-site renewables. It is now time to renew that investigation of on-site renewable energy generation in addition to investigation of other ways to participate in renewable energy globally.

Hypertherm’s New Hampshire locations consist of 11 buildings in Hanover and Lebanon. These towns will also be hosting UNHSI Fellows, so there is a real opportunity for collaboration between the fellows and the organizations to move these projects forward.
Outcomes:
Outcomes of the project will include a subset of the following:

- A report on the feasibility and cost effectiveness of onsite solar, wind, or geothermal electricity generation for specific locations.
- A policy analysis and interviews with various stakeholders that assesses the potential for collaboration on renewable energy initiatives. Stakeholders are likely to include the Towns of Lebanon and Hanover, New Hampshire, and/or state or municipal entities in the regions of Minneapolis, MN, Lockport, NY, and Montreal, Quebec.
- An assessment of off-site renewable opportunities, specifically near the locations of our global offices in the Netherlands, Brazil, China, Singapore, and Italy.
- Templates for assessing renewable options at future Hypertherm locations.

The scope of the project will be defined to prioritize the specific technologies, relationships, and geographic locations with the most potential for reducing overall GHG emissions in a cost-effective manner.

Impact:
The Fellow will gain comprehensive knowledge of renewable energy technologies, markets, and the benefits and limitations of each relative to the needs of a manufacturing business in NH, and/or in other regions in which Hypertherm operates. In addition to familiarity with renewable energy policies, the fellow will gain an understanding of the relevant costs, scales, and business models. The fellow will also gain experience and expertise in interacting with various teams within a business, municipalities, vendors, energy utilities, and local and regional energy policies.

The direct impact of the Fellow’s research is the potential implementation of a significant renewable energy project at a Hypertherm facility. We hope that Hypertherm can serve as an example in reducing our footprint and strengthening local economies by using clean, renewable energy in our manufacturing.

In a broad sense, Hypertherm is seen as a business leader in New Hampshire, and is often looked to as a thought leader in its sustainability initiatives, and can serve as a model to other businesses. As a manufacturer ourselves, we are also a trusted advisor to our customers, and we want to be able to showcase our use of renewable energy to inspire change in our thousands of customers worldwide.

Desired Qualifications:

- Degree program in environmental science, energy, business/finance, engineering, or related field
- Experience with modeling and MS Excel
- Good interpersonal and verbal / written communication skills, word processing
- Strong research, analytical, and quantitative skills
• Strong interest in renewable energy, sustainable land use practices, and how these two issues can complement rather than compete
• Coursework or experience in public policy and/or communications preferred
• Previous experience in government and/or the energy field helpful
• Ability to explain legal and technical information to a general audience

**Work Location:** Hypertherm, Inc., 71 Heater Road, Lebanon, NH

**Mentors:** Robin Tindall, Environmental Stewardship Team Leader; John Rooney, Environmental Program Manager

**Compensation:** $6500 summer stipend (taxable and paid on a two-week payroll cycle over the course of the fellowship term)

**Expectations:** Fellows are expected to be primarily dedicated to their assigned projects throughout the summer, and also participate in a variety of networking activities, professional development opportunities, and presentations coordinated by UNHSI. Specifically, Fellows are expected to:

- Attend a mandatory orientation at UNH prior to the start of the fellowship term, **May 28-30, 2019.** (Travel scholarships may be available for students traveling from outside New England.)
- Work full-time on-site at the partner organization for 10 weeks, for a total of 400 hours, **June 3 - August 16, 2019** (an eleven-week period, allowing for one week off, as mutually agreed upon with supervisor).
- Complete a fellowship project according to the work plan (with adjustments as necessary).
- Participate in weekly webinars or advisory group meetings.
- Present work at mid-term and final poster sessions at UNH on **July 12** and **August 9.** (Travel support available.)
- Engage in additional professional development, networking, and advisory activities as offered.
- Provide and receive feedback at the end of the fellowship.

**Apply by February 7** at [www.sustainableunh.unh.edu/sustainability-fellows](http://www.sustainableunh.unh.edu/sustainability-fellows).

**Questions** may be addressed to [megan.carney@unh.edu](mailto:megan.carney@unh.edu).