



Universities are embracing geothermal HVAC

But Could They Get More and Pay Less?

What do Michigan State, Stanford and LSU have in common – besides historic athletic programs?

They're all using geothermal technology to modernize their campus HVAC systems – and so are dozens more US colleges and universities. It's enough to earn these schools a solid A. Now can they earn an A+?

Most university geothermal HVAC systems rely on massive borefields and hundreds of vertical wells, and they're often expensive, disruptive of campus life, and hard to monitor.

At Erda, we deliver the *next* generation of geothermal HVAC – **much smaller surface footprints, far more efficient inclined drilling, advanced in-borehole systems, responsive real-time energy management and flexible financing options.**

That's why the [University of Sheffield](#), [Oxford-Brookes University](#), and the [University of Dundee](#) trust our systems in their new and existing campus buildings. It's why we provide **better COPs** than any other geothermal heating & cooling provider.

And it's why our customers **save an average of 35% on heating and cooling costs**, consume 80% less energy for heating, and reduce carbon output by 67%.

- ✓ **90% fewer boreholes** than conventional campus geothermal HVAC systems
- ✓ **COPs of 4-5** – more efficient than vertical arrays of plastic u-pipes
- ✓ **200+ years** of operational system up-time

There's much more to Erda's advantage over conventional university systems. **Read on for details – and maybe some extra credit.**

Conventional Systems	Erda Energy's Systems	The Erda Difference
<u>High Costs</u> Typical geothermal HVAC systems can cost hundreds of millions of dollars, requiring universities to commit significant resources or take on new debt.	<u>Near-Term Savings</u> Erda offers an array of asset ownership options, with Erda systems typically becoming net energy savings positive within 8-10 years of installation.	✓ Lower overall system cost ✓ Multiple financing & ownership models ✓ Faster to achieve net savings on energy
<u>Hundreds of Boreholes</u> Most systems require hundreds of boreholes to provide the necessary heating and cooling.	<u>90% Fewer Boreholes</u> Erda's inclined drilling method provides the same heating and cooling with about 10% of the boreholes.	✓ Flexible location options ✓ Less surface disruption ✓ Reduced project costs



Case Study: The University of Sheffield's Erda system uses just 16 Erda | deep boreholes (490-700 ft) to supply 4,100 MBH of heating, 3,100 MBH of cooling and over 6,800 MMBtu of energy (heating and cooling) to the Faculty of Social Sciences Building. In operation since 2022, the system is seamlessly integrated into the building design and campus landscaping.

<u>Plastic U-Pipe</u> Conventional ground loop systems rely on the limited conductivity of plastic.	<u>Erda deep Coaxial System</u> Our Erda deep wells are steel-cased and use high thermal conductivity grout to allow far more energy exchange.	✓ COPs of 4-5 ✓ 150x higher conductivity ✓ 3.5x more energy exchange area
<u>Minimal System Service</u> Many system providers end their services after installation, leaving campus staff to run and maintain the technology.	<u>Top-to-Bottom AfterCare</u> Erda's AfterCare provides regular re-commissioning and planned preventative maintenance (PPM), helping our systems achieve over 99.9% historical uptime.	✓ Reduced demands on university staff ✓ Quick-turnaround maintenance ✓ >99% system uptime

Erda is ready to save your campus time, money and logistical headaches. Come join us at the top of the class!

About Erda Energy

Erda Energy delivers turnkey geothermal heating and cooling systems that eliminate wasted energy and convert it into long term value. With patented borehole designs, advanced controls, and a proven commercial track record, we make geothermal heating and cooling work where others can't — and we do it without disruption. Learn more at energyenergy.com.

