

ThermoLift heat pump gets \$1.5M in funding



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Photo credit: Randee Daddona | Chief executive Paul Schwartz shows a heat pump ThermoLift Inc. is developing that would allow natural gas to be used to cool and heat homes. He anticipates a prototype within a year. (March 26, 2013) A company developing a super-efficient heat pump for cooling and heating homes has commitments of up to \$1.5 million in funding from Long Island investors, according to two people familiar with the negotiations.

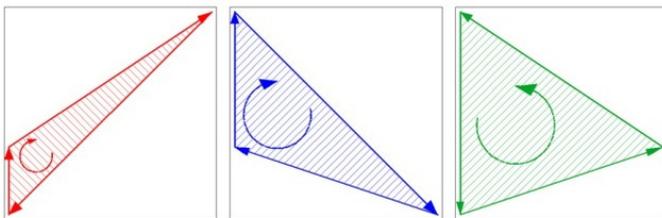
ThermoLift Inc., based in the Stony Brook Advanced Energy Research and Technology Center, is refining the technology for a natural-gas-powered heat pump with the goal of sharply cutting home energy costs. An investor and the company's chief executive said the company has commitments for initial funding from the Long Island Angel Network, a group of local investors focused on private, early-stage companies. The Long Island Angel Network did not confirm the amount, saying the investment would be finalized in mid-April. The funding comes as local officials have said marketable research coming out of Long Island universities and laboratories is key to creating new companies and jobs.

The ThermoLift device uses natural gas, as well as the energy in heat from the surrounding air, to power itself as it moves heat into or out of a building. Its developers, and scientists at [Stony Brook University](#) and [Brookhaven National Laboratory](#) who have studied the pump, say its technology achieves greater efficiency than conventional HVAC systems. The pump is based on a German prototype developed in the 1990s.

The Angel funding will go toward developing a version with electronic controls and the ability to cool and heat homes using natural gas, as well as provide hot water, chief executive Paul Schwartz said. He anticipates the prototype will be built within the year, with ThermoLift going to market in three years. "If you were to go out and buy a heater, air conditioner and water heater, [ThermoLift] will be cheaper," Schwartz said. "Our first objective is to save people money." Schwartz, whose background is in finance, met the inventor of the original pump, German scientist Peter Hofbauer, when the two worked at an automotive technology company in California. Hofbauer is a co-founder of ThermoLift, but not involved in its day-to-day operations.

In 2011, Schwartz left his finance job to pursue ThermoLift full time, and he was able to obtain the last German prototype of the heat pump in existence. Schwartz said he plans to use the financing to hire three to five employees for engineering and consulting work. So far, he has been aided by Stony Brook professors and contract engineers as he worked toward financing. ThermoLift also has applied for grants from the Department of Energy and [New York State Energy Research and Development Authority](#).

Scientists at [Brookhaven and Stony Brook](#) said the device is promising because it is based on technology that is proven. They said the biggest hurdle for the company could be the innovation required to integrate electronic controls with the mechanical pump. **Bob Catell**, an investor in ThermoLift, and the former chief executive of natural gas provider KeySpan Corp., said he saw potential in the business: **"The natural gas industry has always been looking for a sort of 'holy grail,' something that can do both heating and cooling . . . and ThermoLift certainly seems to have the ability to do that."**



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