

SUMMERSIDE HELPS YOUNG INVENTORS TAKE INNOVATION FROM LAB TO MARKET



Three UNB engineering students had an innovative idea: create an eco-friendly heat pump that could store energy, reduce peak loads on the electrical grid, and save consumers money.

Heat pumps reduce the thermal demands of home comfort but put a huge strain on the grid during peak hours. If heat pumps store energy, that energy can be used during peak times and reduce peak loads.

Stash had validated a heat pump with a cost-effective storage solution in their tabletop experiments but not in a real-world setting. How could these young students take their brilliant idea from the lab to the marketplace? The City of Summerside provided the answer.

Staff with the electrical utility and economic development wanted to help the upstart innovator prove its product, deliver real-world market validation, and add to its suite of energy-saving appliances.

Through the addition of storage and control, the Stash heat pumps allow the utility to manage the appliances. In turn, the consumer benefits from lower heating and cooling costs.

The city and Stash Energy officially signed a deal in 2017, with the city investing venture capital dollars, purchasing two prototype units, providing space for testing, and giving the young entrepreneurs technical support as they refined their product. In exchange, the city obtained some equity in the firm and forged a partnership with the up-and-coming Fredericton business that could further the city's own green vision.

The partnership operates under the City of Summerside's Living Lab, which creates connections between entrepreneurs and city infrastructure—in this case opening up Summerside Electric and its expertise to innovative students.

In late 2018, **The Globe and Mail** named Stash Energy a Canadian clean-tech company to watch. By 2022, Stash Energy and the city had reached the pilot phase of their partnership, with five units in use in local residences. The partnership has allowed Stash Energy to move the product closer to commercialization—with the company making inroads in New York, Vermont, Maine, Massachusetts, Nova Scotia, and PEI.

