



# A Case for the Cloud: Green Power Labs

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#### What was the business problem?

Current commercially available building energy management systems do not maximize efficiency opportunities because they are unable to take into account what goes on outside the building. Our software combines the short-term weather forecast with energy management techniques to reduce the overall carbon footprint of buildings and their energy consumption. By taking into account the local weather surrounding the building, we can leverage what is happening naturally to either heat or cool the building in a more energy efficient manner.

## How does your product solve this problem?

Green Power Labs has developed software that can calculate the necessary adjustments that a building must make to maintain a certain temperature. The software then initiates adjustments to the building's energy management system that result in more efficient energy use and a lower overall carbon footprint for the building.

### What technical resources did you need?

We needed a large amount of computational resources in order to run and test our software, which requires substantial training of artificial intelligence models. As a start-up, we also needed these resources at a low cost.

#### **Cloud Clip:**

Organizations that adopt cloud technologies report greater scalability, faster access to infrastructure, and faster time to market for products and services. <sup>1</sup>

#### Why did you choose the DAIR Cloud?

Green Power Labs chose the DAIR Cloud because we were able to double the amount of computational resources that were available to

1 http://cloudtweaks.com/2015/04/cloud-infographic-guide-to-small-business-cloud-computing/

us for developing this product. DAIR also allowed us to experiment and build our proof of concept prototype to attract investors before looking to scale with a commercial cloud. And the price was right!

### How did the DAIR Cloud help your business?

DAIR offers us extra processing power and a separate server to manage our heavy computational requirements. The extra processing power is put to work in training our models, which can take up to 48 hours, allowing us to double our output. Having free access to these resources is a bonus.

We've also been using DAIR as a secure channel for data transfer between multiple virtual machines, something that would be expensive to do using a commercial cloud platform.

#### What was the result?

DAIR has significantly helped us in building our prototype product, components of which are being tested in downtown Halifax. We are continuing to use DAIR to further develop our product as we move towards commercialization.

### Digital Accelerator for Innovation and Research - DAIR Program

Designed to give Canadian entrepreneurs a competitive edge, DAIR provides free access to high performance cloud resources without hidden costs. DAIR enables small businesses to accelerate product development while reducing cost by leveraging the scale, speed and agility of cloud resources.

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