

# NYSP2I Performs Greenhouse Gas Evaluation of Bright Building's Energy Performance SaaS Platform



## Bright Building

Bright Building LLC is an Ithaca, NY based company that has developed a simplified, yet powerful, commercial building performance optimization software-as-a-service (SaaS) platform. Energy managers of commercial buildings are challenged with staff reductions, constrained budgets, and an overload of alerts/alarms out of typical building automation systems (BAS). The SaaS platform works in conjunction with most existing BAS and securely delivers prioritized actionable insights that save energy, meet resiliency goals, and extend equipment life. Their unique and simple approach is designed to focus on the key features that matter most to energy managers and facility directors.

## Challenge

Bright Building claims their SaaS technology would provide significant energy and GHG savings compared to the use of BASs as they exist today. Bright Building sought to estimate the potential energy and GHG impact that could result from the use of their technology.

## Solutions

Bright Building requested the assistance of New York State Pollution Prevention Institute (NYSP2I) to evaluate the energy and GHG impact of their technology. To this end, NYSP2I first worked with Bright Building to define a target building type for the analysis, and then using publicly available data on commercial buildings, quantified the baseline building energy use. The GHG impacts were calculated utilizing GHG impact factors for electrical energy and natural gas use. The building stock of focus was commercial office, healthcare, educational, and hospitality buildings in the Mid-Atlantic region of the United States that were already utilizing a building automation system (BAS).

## Challenge

- Estimate the potential energy and GHG impact associated with the use of Bright Building's SaaS performance enabling technology in the field.

## Solution

- A comparative analysis of energy and GHG impact was performed between commercial buildings utilizing BAS with and without Bright Building's SaaS technology.

## Results

- The annual per unit energy impact is: 13.0 kBtu/sf/year
- The annual per unit GHG impact is: 0.67 kg CO<sub>2</sub>e/sf/year
- Claimed commercial building energy and GHG impact reductions of 12%.
- Expected higher than 12% savings rate to be achieved in the field.

Next, theoretical building energy use for the same stock of buildings utilizing Bright Building's SaaS technology was calculated by applying Bright Building's projected conservative energy savings rate of 12% to the baseline energy use. A meta-analysis on building retuning energy savings from the Pacific Northwest National Laboratory provided the basis for this energy savings rate. Last, the results were compared to determine the potential reduction in energy use and GHG impacts associated with the use of Bright Building's SaaS System.

## Results

NYSP2I determined the annual per unit impacts of Bright Building's SaaS system as follows:

- The annual per unit energy impact is: 13.0 kBtu/sf/year
- The annual per unit GHG impact is: 0.67 kg CO<sub>2</sub>e/sf/year

Bright Building's technology is claimed to have the potential to reduce the energy and GHG impacts associated with commercial buildings by 12% overall for the commercial building sectors considered as part of this analysis (i.e., office, healthcare, hospitality, educational). Bright Building considered 12% to be a conservative estimated savings rate due to a number of features unique to their technology, including providing prioritized insights and recommendations as well as real-time savings feedback. For these reasons and the fact that Bright Building will be targeting businesses with the highest energy savings potential, they expect that even higher savings will be achieved when their technology is applied in the field.

The estimated GHG emission impacts calculated by NYSP2I at RIT are based on information and claims provided to NYSP2I by Bright Building relative to their product and the baseline technology. It should be noted that this analysis considered the use phase of the technology only, and did not consider raw material extraction, manufacturing, or end-of-life life cycle phases.

*"It was wonderful to work with NYSP2I; they provided sound methodologies and courteous professionalism. They were great to collaborate with and delivered a high quality report that helps us better focus on our target market."*

**Jerone Gagliano**  
Founder and CEO

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