Energy Efficiency Analysis

GreenLight Solutions

General Dynamics

GreenLight GreenPaper

Spring 2014

GreenLight Solutions assessed and quantified energy consumption, then compiled research and recommendations for energy efficiency improvements.

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Challenges & Opportunities

General Dynamics wished to reduce their energy consumption and transition to a more energy efficient operation within their main office buildings. The opportunity was for the organization to save money through saving energy, and create an eco-conscious culture in the workplace. Additionally, the research goals were to assess and quantify General Dynamics energy performance at both campuses from 1991 to 2013.

The challenge was that the team at General Dynamics did not have the manpower to complete this specific initiative, thus they enlisted the support of GreenLight Solutions. GreenLight Solutioneers had the opportunity to tour the Hayden and Roosevelt campuses and interview personnel from the operations and environmental staff.

Recommended Solutions

The Solutioneers assessed and quantified energy performance from 1991 to 2013. Then they researched and compiled specific recommendations for continued energy efficiency improvements at the Project Partner's offices.

<u>The team's key findings include:</u>

- Reduced electricity consumption by **37%**
- Reduced natural gas consumption by **79%**
- **$10,343,591** saved
- Avoided emitting **243,491 MtCO2e**

The team provided **16** specific recommendations for General Dynamics: **6** behavioral & **10** structural recommendations, ranging from solar tube lighting to individual impact self-evaluation. A few structural recommendations made was to instal sub-metering for detailed energy monitoring and to instal cool roof reflective coating, as well as a second skin of natural vegetation to sides of buildings.

Project Benefits

Benefits to Project Partner

General Dynamics was able to use the information and recommendations provided to make their operations more energy efficient.

Benefits to Solutioneers

The team members researched and learned dozens of ways to reduce energy consumption and create an eco-conscious workplace.

Benefits to the Community

The community at-large benefits from businesses leading the way to reduce their carbon footprint and be more energy efficient.