

ILLUMINA® – SDG&E

Energy Saving Upgrades

Realizing Greater Efficiencies through Unprecedented Growth

2015 Energy Champion – Biotech

Challenges

Illumina hasn't stopped building since moving to its campus four years ago. In 2014, the company experienced unprecedented growth that resulted in the addition of more than 700 new employees. The increased energy costs, as well as facilities and operational challenges associated with such rapid expansion, pushed Illumina to become more energy efficient. An aggressive target of reducing energy use on campus by 20% was set and the company had to find new ways to fulfill this ambitious goal while keeping pace with accelerated growth.

Green is in the genes – Illumina has four sustainability teams – energy, water, greenhouse gas (GHG) and waste. Teams meet monthly to monitor the company's green practices.

The Solution

Illumina turned to SDG&E® partner Willdan Energy Solutions to conduct a full energy audit identifying the opportunities for savings throughout its 500,000 square-foot facility. This 3-month analysis found 40 potential initiatives out of which the team tackled 20. Illumina also became part of the Sustainability Circle®, allowing Illumina to interact with other companies and integrate the Circle's core philosophies into its culture. As a result, Illumina used less energy in 2014 compared to the previous year, despite the company's increased size.

Purple pipes, serious savings – By taking advantage of the Siemens Water Reclamation Plant located nearby, Illumina uses purple pipe water for irrigation, to save a total of 25 million gallons of fresh water a year.

* Source: Conversion from the EPA clean energy website <http://epa.gov/cleanenergy/energy-resources/calculator.html>.

** Illumina has implemented sustainability projects saving a total of 2.5 million kWh. The above figure is only for projects with SDG&E rebates and incentives.

Illumina®:



\$269,576

SDG&E Rebates & Incentives

Annual Energy Savings*:



1,145,731 kWh

Equivalent to CO² emissions from **1,837 barrels of oil** used**



68,660 therms

Equivalent to carbon sequestered by **298 acres** of U.S. forests in one year



Lighting the way for less

168 exterior parking lights and 1,840 interior lamps were replaced with LED bulbs resulting in \$60,237 annual energy savings and 401,579 kWh savings.



"We made a bold commitment to energy efficiency and sustainability two years ago and we've never looked back!"

- **Graham Hirst,**
Illumina, Associate Director, Global Facilities Operations
- Obed Varela,**
Associate Director of Global Health, Safety and Environment
- Jerry Yaddgo,**
Senior Facilities Engineer

A Healthy Corporate Responsibility

Illumina's mission to advance human health reaches beyond the biotech platforms and systems that it manufactures to impact both their community and the world we all live in thanks to the company's innovative sustainability practices. For example, Illumina uses 85% recycled water – significantly higher than the industry standard at 50%. Metrics is an important aspect of every project, especially energy efficiency. By measuring results and adapting along the way, the company is able to maximize efficiency and savings.

Energizing Employees About Efficiency

Each year Illumina hosts Earth Week for employees, to boost awareness about conservation and encourage sustainable practices at home. In addition, the company's iLiving Team promotes efforts such as biking to work, coastal cleanup and reusable containers.

What's Next: With efficiency embedded in its DNA, Illumina plans to maintain their sustainability efforts by enhancing their global engineering staff, requiring all new buildings to be developed LEED Silver or higher, and to investigate battery storage and Fuel Cells. To learn about SDG&E programs and solutions that have helped Illumina stay on the cutting edge of efficiency, visit sdge.com/bizrebates. To learn more about Illumina visit illumina.com



A Valuable Upgrade

By updating its thermal oxidizer operation, Illumina enabled natural gas savings that resulted in a one-year ROI.

Drive Up, Plug In

As part of the Shell Pilot Program, Illumina has installed 14 electric vehicle (EV) charging stations and plans to add 20 more this year.



Featured Solutions

- Energy Efficiency
- Engineering Analysis
- Financing and Revenue Optimization
- Energy and Sustainability

These programs are funded by California utility customers and administered by San Diego Gas & Electric Company (SDG&E®) under the auspices of the California Public Utilities Commission. Program funds, including any funds utilized for rebates or incentives, will be allocated on a first-come, first-served basis until such funds are no longer available. This program may be modified or terminated without prior notice. The selection, purchase, and ownership of goods and services are the sole responsibility of customer. SDG&E makes no warranty, whether express or implied, including the warranty of merchantability or fitness for a particular purpose, of goods and services selected by customer. Customers who choose to participate in these programs are not obligated to purchase any additional goods or services offered by contractors or any other third party. SDG&E does not endorse, qualify, or guarantee the work of any contractor or other third party. Actual savings may vary and will depend on various factors.

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