



# Port of San Diego

May 13, 2020

## Tools of Change Illustrated

- ▶ Building Motivation, Engagement and Habits Over Time
- ▶ Feedback
- ▶ Incentives
- ▶ Norm Appeals
- ▶ Overcoming Specific Barriers
- ▶ Vivid, Personalized, Credible, Empowering Communication
- ▶ Word of Mouth
- ▶ Work Programs that Influence the Home

## Location

- ▶ San Diego, California, USA

## Initiated by

- ▶ Port of San Diego

## Results

- ▶ Reduced energy use by 32% and water use by 56% over seven years

## Introduction

The Port of San Diego's (Port's) Green Business Network is an integrated energy efficiency and sustainability program that educates member businesses on sustainable business practices and connects them with resources to implement building and operational improvements. Focusing on businesses in a small geographical area helps create a community spirit that businesses are reluctant to opt out of. Between 2011 and 2017, participating businesses reduced energy use by 32% and water use by 56%.

## Background

**Note: To minimize site maintenance costs, all case studies on this site are written in the past tense, even if they are ongoing as is the case with this particular program.**

While many ports in California were focused on the cargo industry, the Port was unique, with most land comprised of commercial tenants (including hotels, museums, restaurants and retail stores), industrial businesses, and two cruise ship terminals. For this reason, the Green Business Network was instrumental in educating and engaging a diverse group of businesses on the importance of sustainability and how businesses could leverage existing programs to reduce project costs and increase return on investment.

The program managed a network of over 80 businesses—including waterfront industries, hotels, marinas, restaurants, tourist attractions, and retail shops—all of which benefited from its in-person offerings. These included educational and technical workshops, energy and water audits, networking events, information on rebates and incentives, behavioral change campaigns, and one-on-one sustainability advice.

## Getting Informed and Prioritizing Audiences

In 2013, the Port adopted a Climate Action Plan establishing greenhouse gas (GHG) reduction goals for all Port tidelands including Port owned and operated facilities, as well as tenant and subtenant operations. Tenant and subtenant operations accounted for approximately 96% of the total GHG emissions and 80% of its total energy consumption. It was clear that success of the plan depending on engaging these audiences.

## Delivering the Program

The Green Business Network provided member businesses with access to technical and educational resources that yielded actionable steps to improve energy efficiency and sustainability. It also offered promotional and networking resources. These are summarized in the following list.

- Energy Audits (12 completed). Audits identified over 950,000 kilowatt hour (kWh) of energy savings and over \$170,000 in annual cost savings
- Water Audits (4 Completed)
- Assistance Creating Sustainability Action Plans prioritizing energy, waste and water reductions over a five-year timeline (13 completed; plans identified approximately 1.6 million in annual kWh savings)
- Marketing Videos (28 created)
- Educational Workshops and Facility Tours (over 30 workshops completed with 700 participants). Topics included: sustainability facility tours of local businesses, energy efficiency rebates and incentives, marketing sustainability initiatives to consumers, electric vehicles, LEED building design, and microgrids.
- Annual Sustainable Achievement Awards Program and Ceremony (20 Awards over three years in various categories)

- Bi-Monthly Newsletters outlining sustainability case studies, member highlights
- Alerts on applicable grant opportunities

In addition, in 2018, the Green Business Network introduced a Green Employee Engagement Campaign to educate and engage tenants and their employees about energy efficiency in the workplace and at home. Studies had shown that gamification programs could result in energy efficiency reductions

- 5 businesses participated across various sectors: CP Kelco, Hilton San Diego Airport/ Harbor Marina, San Diego Convention Center, San Diego Yacht Club and Sun Harbor Marina
- 186 total participants
- 1,900 sustainability actions taken

From 2011-2017, Network members reduced energy use by approximately 10.8 million kilowatt hours and 299,000 therms through SDG&E rebates and incentive programs.

The following table summarizes the key barriers and how each was addressed.

Barriers	Solution
The Port was unable to provide tenant businesses with funds to implement projects; therefore, tenants didn't have enough capital budget to implement sustainability projects that had a payback greater than 5 years	<ul style="list-style-type: none"> <li>• Grant Funding Notifications</li> <li>• Information on relevant rebates and incentives</li> <li>• Free energy and water audits to analyze project costs to create future budgets for projects</li> <li>• Utilizing SDG&amp;E rebates and incentives to reduce overall project costs</li> </ul>
Lack of technical expertise; competing demands for time and	<ul style="list-style-type: none"> <li>• Free energy and water audits</li> </ul>

attention for tenant business staff	<ul style="list-style-type: none"> <li>• Technical assistance: one-on-one sustainability assistance</li> <li>• Educational Workshops and Facility Tours</li> <li>• Bi-Monthly Newsletters</li> <li>• LEED Trainings for Member employees</li> </ul>
Cost to implement the Green Business Network	<ul style="list-style-type: none"> <li>• Ability to utilize the Port's SDG&amp;E Local Government Partnership Funds to fund energy efficiency projects, marketing opportunities and educational opportunities</li> </ul>

18,750 kWh and 525 therms per tenant per year. On average, tenants reduced their energy use by 32% over the seven years (averaging a 3.6% yearly reduction).

There was an accompanying 56% decrease in water use.

Energy efficiency improvements made to member businesses fell into the following two categories.

- *Energy efficiency retrofits*: installed occupancy sensors, LED lights, variable frequency drives, more efficient HVAC units, and additional initiatives
- *Employee behavior change* that further reduced overall energy consumption

In all, 13 businesses created 5-year Sustainability Action Plans outlining large-scale initiatives to reduce energy consumption. The Green Employee Engagement Campaign led to 1,900 sustainability actions taken that contributed to these energy savings.

## Measuring Achievements

Program impacts were measured through surveys as the Port didn't have direct access to member businesses' utility data. The Port worked closely with San Diego Gas & Electric (SDG&E) to continue to improve ways to track data associated with the Green Business Network while maintaining full privacy rights of all businesses.

## Providing Feedback

Program reporting and promotion activities provided feedback on group achievements.

## Results

Between 2011 and 2017, member businesses reduced energy use by approximately 10.8 million kWh and 299,000 therms. That is an average of 1,500,000 kWh and 42,000 therms per year. Averaged over 80 tenants, that is

## Notes

- The program provided the Port with a channel to help Port tenants and subtenants reduce their financial expenses and environmental impact, which helped the Port meet its Climate Action Plan goals.
- The power of networking allowed businesses to share best practices on sustainability measures.
- Businesses that didn't have staff focusing on sustainability and environmental initiatives still benefited from educational resources, newsletters and technical assistance.
- This approach could be easily replicated in other ports, airports, business parks, local government agencies and business associations.

## Contact

Kellie Carlson  
Senior Environmental Specialist, Energy &  
Sustainability, Port of San Diego  
3165 Pacific Highway, San Diego, CA 92101  
[kcarlson@portofsandiego.org](mailto:kcarlson@portofsandiego.org)

More details:

<https://www.portofsandiego.org/environment/green-business-network>

.....

For step-by step instructions in using each of the tools noted above, to review our FULL collection of over 170 social marketing case

studies, or to suggest a new case study, go to [www.toolsofchange.com](http://www.toolsofchange.com)

This case study is also available online at <http://www.toolsofchange.com/en/case-studies/detail/731>

It was compiled in 2019 and 2020 by Jay Kassirer based on information provided by the Port of San Diego.

The Tools of Change planning resources are published by  
Tools of Change  
2699 Priscilla Street, Ottawa Ontario  
Canada K2B 7E1 (613) 224-3800  
[kassirer@toolsofchange.com](mailto:kassirer@toolsofchange.com)  
[www.toolsofchange.com](http://www.toolsofchange.com)