

2017 AAPA Environmental Awards Competition
Stakeholder Awareness, Education & Involvement



Green Business Network:
Engaging Businesses Through Technical
and Educational Resources



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I. Introduction:

The Port of San Diego (Port) serves the people of California as a specially created district, balancing multiple uses on 34 miles along San Diego Bay spanning five cities, San Diego, Chula Vista National City, Imperial Beach, and Coronado. The Port champions Maritime, Water Development, Public Safety, Experiences and Environment, all focused on enriching the relationship people and businesses have with our dynamic waterfront. The Port's multiple land uses include cargo and cruise terminals, hotels, restaurants, marinas, museums, and 22 public parks which host community events throughout the year, the Port contributes to the region's prosperity while maintaining environmental vitality.

In 2007, the Port developed the Green Port Program, which aims to achieve long-term environmental, societal and economic benefits through resource conservation, waste reduction and pollution prevention. In 2013, the Port was one of the first ports to adopt a Climate Action Plan (CAP) to support and expand upon the goals of the Green Port Program, placing the Port at the forefront of the San Diego's regional climate planning efforts. The CAP establishes greenhouse gas (GHG) reduction goals for all Port tidelands including Port owned and operated buildings, as well as tenant and subtenant operations. To achieve the goals, the CAP contains a palette of potential GHG reduction measures and sets forth a GHG emission reduction goal of 10% less than 2006 baseline levels by 2020, equal to 109,794 metric tons of carbon dioxide equivalent (MT CO₂e). Tenant and subtenant operations account for approximately 96% of the total GHG emissions along Port tidelands, making the Green Business Network a critical component to reaching the Port's GHG emission reduction goals.

Started in 2010, the **Green Business Network** (Network) is an integrated energy efficiency and sustainability program spearheaded by the Port to educate tenants and subtenants on sustainable business practices and connect Port businesses with resources to implement

building and operational improvements. As the first of its kind on the West Coast, the Network was originally developed as a *Green Business Challenge* to promote healthy competition amongst Port tenants and subtenants interested in implementing sustainability into their operations. The Network has since developed into a robust voluntary sustainability program for businesses located on Port tidelands, providing assistance to businesses interested in implementing initiatives that improve operational efficiency and reduce environmental impacts. The program provides Members with no-cost resources and training opportunities to better incorporate sustainability into daily business practices, while recognizing Member success stories through marketing campaigns and annual awards.

As of May 2017, the Network has grown to **88 Members**, spanning a variety of industries, as represented in Figure 1. Since 2010, Members have saved approximately **10.8 million kilowatt hours of electricity and 299,000 therms¹**, the equivalent of removing 1,900 cars from the road for one year². Member resources have included:

- no-cost energy audits
- five year sustainability action plan development,
- educational workshops,
- training opportunities,
- networking opportunities, and
- Network recognition through annual awards and marketing collateral (campaign assistance, promotional videos and press releases).

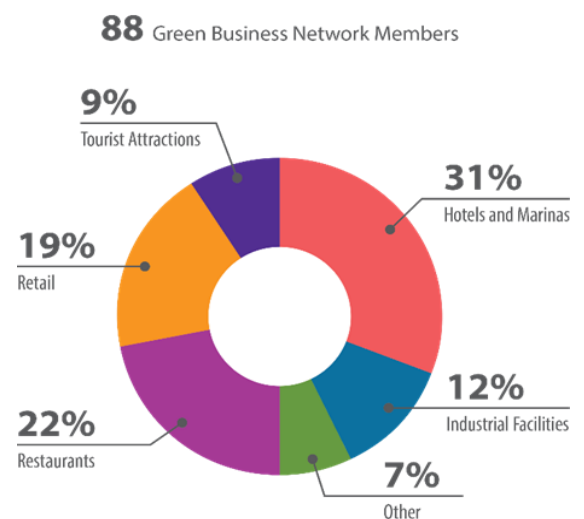


Figure 1. Green Business Network Member Sector Categories

¹ Savings calculated from San Diego Gas & Electric Rebate and Incentive Applications from 2011-2016.




² Environmental Protection Agency Greenhouse Gas Equivalencies Calculator

II. Goals and Objectives:






The Network’s mission is to educate Port tenants and subtenants on ways to implement sustainability across business lines, which result in reduced consumption and GHG emission reductions, as well as demonstrated financial savings opportunities. The engagement of tenants and subtenants is essential for the Port to meet the CAP GHG emission reduction goals, making the availability of continued education and technical resources to the tenants and subtenants a critical aspect of the Port’s environmental programs.

The primary goals for the Green Business Network are:


To Expand Internal and External Communication

	Website	Update website with resources and press releases to showcase Member success stories: www.greenportnetwork.org .
	Newsletters	Send bimonthly newsletters to Members to promote upcoming environmental trainings, grant funding and award opportunities, and networking opportunities.
	Outreach	Port Staff to represent the Network at external events annually. This allows the community to learn about the sustainability initiatives that Network Members have implemented and how other businesses can implement similar environmental projects.


Increase Member Engagement


	Dashboard	Encourage Network Members to utilize the newly launched Network Dashboard which provides Members with a one stop shop for accessing Member only resources. Resources include: energy audits, marketing collateral, external award applications, and interactive scorecard.
	Scorecard	Utilize the online scorecard to better track Members’ progress on sustainability projects and to provide Members with project ideas including clean transportation initiatives and employee engagement campaigns.
	Membership	Grow membership and introduce a tiered membership structure to better recognize Members who more actively participate in the Network.
	Energy Audits	Provide Members with no-cost energy audits to identify low cost energy efficiency retrofit opportunities and schedule follow-up appointments to track implementation progress.
	Funding	Investigate grants and other funding opportunities and regularly inform Network Members of appropriate opportunities on a bimonthly basis.

Increase Member Engagement

	Training	Hold educational workshops quarterly, including one Network Member facility tour to allow businesses to share best practices. Update Network website calendar with local agency trainings and events on a monthly basis.
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Provide More Recognition Opportunities for Members

	Marketing	Create a self-promotional marketing package for Network Members and produce press releases to announce Network Member achievements.
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	Awards	Evaluate Scorecard responses and select seven Network Sustainable Achievement Awardees annually. Award categories include: Energy Efficiency, Water Efficiency, Waste Reduction, Air Emissions, Office Sustainability, Innovative Initiative, and Employee Engagement.
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These project goals feed into the Port's main CAP goal for reducing GHG emissions across Port tidelands.

III. Discussion

A. Background

While many ports in California are focused on the cargo industry, the Port of San Diego is unique in that the majority of land is made up of commercial tenants including hotels, museums, restaurants, retail area, and manufacturing businesses. For this reason, the Network is instrumental in educating and engaging a diverse group of businesses on the importance of sustainability and how businesses can leverage existing programs to reduce project costs and increase return on investment.

The Network provides member businesses with access to technical resources that yield actionable steps to improve sustainability. Educational workshops are held each quarter, with subject matter experts presenting sustainability topics that have included: recycling and waste management, solar thermal technologies for businesses, combined heat and power, and utility rebates and incentives. The Network also offers no-cost energy audits for businesses seeking to

better understand and reduce on-site energy consumption. Qualified energy engineers provide American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE®) Level 1 or Level 2 audits (depending on the business size), which identify recommendations for energy-related improvements to improve building efficiency.

Along with technical resources, the Network provides Members with marketing support and recognition opportunities to promote sustainable achievements. Short promotional videos are offered to Members at no-cost to showcase various sustainable initiatives implemented by member businesses. The Network publishes the videos on its website and issues press releases to announce the videos; additionally, the Network provides the videos to the business for promotion through their own communication channels. The Network also recognizes Members for their exemplary performance in seven different environmental categories with annual *Sustainable Achievement Awards*. Winning businesses are honored at a year-end networking event and ceremony that offers Members a chance to learn more about the sustainable achievements of their neighboring businesses.



Photo 1. Green Business Network Members recognized at the 2017 Sustainable Achievement Award Ceremony

In pursuit of the Network's overarching goals to grow membership and continue to improve engagement with existing Members, the Network has successfully continued to expand the program by offering more one-on-one assistance and technical resources.

B. Objectives and Methodology

Port staff measures the success of the Network by tracking the following:

- Number of Network Members that participate in and/or utilize Network resources such as: energy audits, educational workshops, sustainability action planning services, and marketing videos.
- Data provided by San Diego Gas & Electric (SDG&E) which outlines kilowatt hour and therms savings calculated by Network Member participation in SDG&E rebate and incentive programs.
- Number of site visits by consumers and businesses to the public facing Network website: www.greenportnetwork.org.
- GHG emission reductions calculated from Network Member sustainability projects that are logged on each individual's Network scorecard.
- Number of Members that join the Network.

C. Fulfillment of Awards Criteria

1. Benefits to Environment and Community

The Port champions the safekeeping and environmental stewardship of San Diego's diverse ecosystems. Year after year, progress toward the Port's CAP goals and the Green Port Program are measured and analyzed to ensure that ongoing environmental initiatives around the San Diego Bay are conducive to a vibrant natural environment and provide a remarkable way of life for visitors and residents for generations to come. Successful implementation of the CAP requires participation from Port tenants, subtenants, resource agencies around San Diego, and the broader community.

The Network provides an avenue to better engage businesses and the community with local environmental projects. By hosting outreach booths at community events, including the Port Tenant Association's Operation Clean Sweep, Land and Sea Festival, and Earth Day on the Bay, Port staff is able to share the Network's story with the community, while providing local residents, visitors and businesses with ways to decrease their environmental footprint.

Since 2010, the Network has resulted in measurable GHG emission reductions, further expanding the Port's role as an environmental steward in San Diego. A sample of sustainability projects implemented by Network Members include:

- **Marine Group Boat Works**, a boat repair and construction company, installation of a **500 kilowatt solar photovoltaic system**, resulting in an approximate reduction of **507 MT CO₂e annually** and \$3 million in net savings over 25 years.
- The **USS Midway**, a retired aircraft carrier turned into a museum, retrofitted the restrooms with low flow appliances, resulting in over **640,000 gallons of water** annually.

- The **San Diego Convention Center**, recently awarded the **Leadership in Energy and Environmental Design (LEED) Gold Certification**, composts all excess food and donates untouched leftovers to the San Diego Rescue Mission leading to a **62% diversion of waste** from its facilities.
- The **Hilton Bayfront**, one of the Port's largest hotels, replaced fluorescent bulbs throughout the property with LEDs and upgraded the heating, ventilation, and air conditioning (HVAC) motors, which resulted in an annual **reduction of 1.2 million kilowatt hours**.

There are many other examples demonstrating the dedication of Network Members to help environmental stewardship throughout the Port tidelands. Network resources have assisted these businesses with networking amongst neighboring businesses to share best practices, providing businesses with rebate and incentive information to reduce the cost of these projects, and sustainability action planning to provide businesses with a five year implementation plan to further reduce GHG emissions.

2. Independent Involvement and Effort

A full time Port staff member on the Energy team manages the Network with close coordination between Port staff (Environmental, Marketing, Government and Civic Relations and Real Estate Departments), consultants, and selected third parties to successfully implement the program. The Port utilizes its Local Government Partnership program with SDG&E to help fund the energy efficiency resources within the Network, while using matching funds from the Green Port program to coordinate workshops and



resources centered on waste management, clean transportation, and additional topics outside of energy efficiency. The Port staff member managing the program is in charge of the annual budget, resource allocation and provides a daily contact for Members when they have sustainability questions.

3. Creativity

In 2011, the Port hosted its first annual Top Green Chef event, a fun and innovative event that highlights chefs from restaurants within the Network and demonstrates the use of sustainable local foods and state-of-the-art energy efficient cooking appliances. The event, originally attended by 75 people and only open to Green Business Network Members, has since grown to a public facing event held at the Port's LEED Certified Pavilion on Broadway Pier. Last year the event, now titled *Taste of the Port*, attracted 400 attendees and featured the Green Chef event plus interactive booth displays that educated attendees on ways to implement sustainability into their daily lives.

Port staff have conducted educational panel discussion workshops with sustainability experts since 2012, but expanded these workshops in 2015 to include facility tours of Member businesses and local institutions. Tours have included the University of California, San Diego microgrid, which highlighted fuel cells, battery storage systems, photovoltaic systems, and electric vehicle chargers; the San Diego Convention Center, which showcased energy efficient HVAC equipment, electronic procurement ordering system, composting, and water efficient dishwashers; and a tour of Miramar Landfill accompanied by state mandate updates and waste management resources available to commercial businesses.



The marketing campaign for the Network focuses on ways to better engage businesses and consumers. Marketing materials include captivating videos that highlight the sustainability projects completed by Network Members which are released in press releases and on social media. Port staff has also created creative collateral handed out at Port sponsored events including a Network map that provides consumers with a map of sustainable businesses located across Port tidelands and postcards that outline sustainable cooking recipes for local residents and visitors. To further instill the Network brand, Member businesses are provided with window decals that they can display in their businesses (see inset image).

4. Project Results

The Network began as a small Green Business Challenge and has grown to a robust program that has successfully recruited **88 Members**. The 88 Members account for approximately 96-98% of electricity usage across Port tidelands, making energy efficiency a key component of the program. The program follows a yearly implementation plan that includes funding set aside for: four educational workshops, six newsletters, four energy audits, three marketing videos, grant research, and marketing collateral.

In pursuit of the Network's overarching goals to grow membership and continue to improve engagement with existing Members, the Network has successfully implemented the following initiatives:

- **13** Network Members have participated in a no-cost energy audit through the Network program. These audits have identified over 950,000 in annual kilowatt hour savings and over \$170,000 in annual cost savings.
- **28 marketing videos** have been filmed to showcase Network Member's sustainability success stories.

- **30 educational workshops** have been hosted by the Network to educate Members on: lighting and HVAC rebate programs, waste management, commercial solar, energy efficiency benchmarking, microgrids, electric vehicles, water conservation technologies, and LEED building design.
- **718 Network Members** and local agencies have attended educational workshops, trainings, and networking events.
- **13 Members** have developed five year sustainability action plans to improve energy, waste, and water efficiency. These action plans have identified approximately 1.6 million in annual kilowatt hour savings.

Thus far, Network Members have reduced energy use by approximately **10.8 million kilowatt hours** and **299,000 therms** through SDG&E rebates and incentive programs. The Port continues to identify ways to better track GHG emission reductions associated with the program.

5. Cost-Effectiveness

This program provides the Port with a cost effective solution to assisting businesses with the implementation of GHG emission reduction measures. The Port utilizes a portion of funding from its Local Government Partnership, a rate payer funded energy efficiency program, with SDG&E to pay for the energy efficiency audits, sustainability action planning services, energy training, and other energy services. By leveraging the Port's existing relationship with SDG&E, Port staff is able to recommend existing SDG&E programs to Member businesses that are geared towards reducing costs of energy efficiency projects. These programs include industrial energy audits, HVAC incentive programs, and lighting rebates, which many Members are unfamiliar with prior to joining the Network. Through this Partnership, Port staff is able to

connect Member businesses with SDG&E Account Executives to educate Members on programs that specifically fit their needs.

For educational workshops, the Port is able to reach out to local sustainability program experts who are typically available to present at no-cost. Since many of these experts are looking for avenues to spread awareness of their existing programs, speakers find the Network workshops to be a perfect platform to accomplish this. This allows the Port to keep costs down, while educating 15-20 businesses at a time.

One of the largest successes of the Network has been the networking component. This cost is extremely low for the Port and allows businesses to learn about new technologies that neighboring businesses have implemented. At the end of each workshop, Port staff set aside time for networking; this has led to businesses implementing Green Teams, utilizing loan-financing programs, and incorporating better waste management practices at their facilities.

6. Transferability

The concept of the Green Business Network can be adapted to fit other local government agencies across the United States. Port staff has already shared best practices with local business networks and cities including the City of Chula Vista, City of San Diego, and the California Green Business Program. The Port is currently working with the San Diego Regional Energy Partnership (SDREP) to expand on the successes of the Port's Green Business Network program to create a San Diego Regional Green Business Network. The SDREP is utilizing components from the Port's Network to create their proposed program, including a public facing website, educational brochures, and networking events.

Port staff has also made presentations to various audiences on how the Port's Network can be adapted to fit other cities focusing on GHG emission reductions within the commercial business

sector. Presentations have been conducted at the Statewide Energy Efficiency Conference, Industrial Environmental Association Conference, City Chamber Meetings, and the United States Green Building Council San Diego Chapter meeting.

IV. Conclusion

The Green Business Network is a unique Port program that directly supports the Port's GHG reduction goals established in the CAP. The Network has been an instrumental program that engages tenants, stakeholders, and the community in a meaningful way to ensure that environmental related concepts are taken to action. By providing tenants with the tools and resources to implement energy, water, and waste conservation efforts, the reductions have resulted in regional recognition and the exploration of an expanded San Diego Regional Green Business Network. During the seven years that the program has been in place, the **88 Network Members now represent over 80% of the energy consumption** on the Port tidelands. Member results include a reduction of **10.8 million kilowatt hours of electricity** and **299,000 therms**, or the equivalent of **removing 1,900 automobiles** from the road for one year. Additional Green Business Network resources and success stories are available online at the following:

- **Green Business Network:** <https://www.greenportnetwork.org/>
- **Flagship Cruises & Events:** <https://greenportnetwork.org/news/shore-power-locally-sourced-seafood-contribute-flagship-cruises-events%E2%80%99-environmental-success>
- **Manchester Grand Hyatt:** <https://greenportnetwork.org/news/manchester-grand-hyatt-green-business-practices-save-money-reduce-waste-help-environment>
- **Marine Group Boat Works:** <https://greenportnetwork.org/news/green-business-network-member-marine-group-boat-works-debuts-electric-vehicle-fleet>
- **Annual Sustainable Achievement Awards:** <https://www.portofsandiego.org/environment/4375-port-of-san-diego-honors-its-sustainable-tenants-at-annual-awards-ceremony.html>