Sustainable Incentives Best Practices

A review of national sustainable incentive programs and policies for the San Diego Unified Port District

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Prepared for
San Diego Unified Port District

Prepared by
Center for Sustainable Energy

Center for Sustainable Energy®

Headquarters
9325 Sky Park Court, Suite 100
San Diego, CA 92123
858.244.1177
www.energycenter.org

Office Locations
San Diego, CA
Los Angeles, CA
Oakland, CA
Cambridge, MA

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Contents

Introduction

The San Diego Unified Port District (District) established greenhouse gas (GHG) emission reduction goals in its Climate Action Plan (CAP) adopted in 2013. Within the CAP, the District identified goals for carbon reduction measures from transportation and land use planning, energy conservation and efficiency, water conservation and recycling, alternative energy generation, and waste reduction and recycling. Existing buildings represent the largest opportunity for GHG reductions and tenants account for approximately 96% of GHG emissions emitted on District tidelands. Thus, active tenant involvement in sustainable building improvements is critical for the District to meet its CAP goals. Benchmarking and regular assessments of existing buildings, along with providing incentives, are among the key methods to encourage tenant adoption of energy-related improvements that exceed basic requirements.

This report offers best practices for incentive approaches based on programs offered by various local governments and jurisdictions nationwide in which grants and incentives are structured to motivate resource efficiency and investments in sustainable buildings. These incentive models provide the District background for creating incentive approaches that encourage tenants to invest in sustainable upgrades to meet District CAP goals and to find opportunities to leverage additional ratepayer, government, and grant funding opportunities. Auspiciously, the District's five member cities of San Diego, Chula Vista, National City, Imperial Beach and Coronado have demonstrated ambitious climate leadership and are on the path toward compliance with local and state GHG reduction goals.

District Considerations for Sustainable Incentives

Since 2014, the District has been discussing with tenants sustainable incentives and continues to engage them and other stakeholders to ensure that (1) incentives are sufficiently attractive to motivate and justify investment and (2) the application and review process is streamlined to reduce the administrative burden for tenants and District staff. In addition to these two core strategies, District staff, stakeholders and tenants have provided the following considerations for the design of incentive programs:

- Involve tenants and stakeholders in meeting District CAP goals
- Ensure broad participation from a wide variety of tenants
- Match incentive payments to GHG emission reductions
- Use existing conditions as the baseline for calculating energy savings, provided that some projects do not trigger code
- Account for investments in advanced technologies beyond the building envelope (e.g., electrified vehicles and equipment)
- Require tenant participation in the Green Business Network
- Develop and adopt mandatory building performance standards
- Provide incentives to implement actions identified in energy audits
- Offset upfront costs associated with sustainable building improvements via incentives
- Provide a clear, easy application process
- Issue retroactive credits for past projects
- Allow for bundling of projects and technologies

There are tensions between some of these goals. For example, incentives designed to achieve broad participation from a wide variety of tenants may not result in the largest carbon savings. Issuing retroactive credits for past projects would limit funding to motivate new actions. These differing priorities should be factored into framing of the Sustainable Leasing Policy incentives.

Examples of Port and Local Government Incentive Policies and Programs

Following are examples of programs that have been implemented to entice building owners to pursue green building and clean energy projects using rebates, reimbursements, accelerated permit review, and expedited inspection. A summary of the programs described is included in Appendix 1: Local Government and Port Incentive Programs.

Port of Long Beach, California

The Port of Long Beach and Port of Los Angeles jointly manage a Technology Advancement Program (TAP)[1] to foster the deployment of new and emerging technologies and clean energy strategies including control measure requirements, green container transport systems, emerging technology testing, and emissions inventory improvements. To be considered for TAP funding, vendors must submit a proposal with information on the overall project including background, technology, schedule, and funding. The Port of Long Beach provides 50% of funding for projects that fit its criteria with 50% matching funds required for all projects either as direct financial commitment or in-kind services. The TAP is funded by ports with additional funding from partners such as participating agencies, other ports, and interested shipping lines and tenants. Both ports and the funding partners comprise a Coordination Committee to develop program guidelines, function, decision-making, evaluation, testing, demonstrations, and reporting.

The Port of Long Beach also offers a Port Mitigation Grant Program[2] to reduce GHG emissions and minimize air pollution. Grant funding is available for the following categories:

- GHG reductions through projects such as renewable energy, energy efficiency, and tree planting
- Air quality improvements and noise-reduction measures at schools and related sites
- Air quality improvements at hospitals, clinics, medical centers and senior facilities

Funding criteria for eligible projects and programs depend on the type of organization and facility that applies. Geographic impact zones were established to prioritize school, health care, and GHG grants based on their proximity to the port and trade corridors. With cost-effectiveness as a major criterion for funding, priority is given to actions that can benefit the most people per port dollar.

[1] Technology Advancement Program, http://www.polb.com/civica/filebank/blobdload.asp?BlobID=3468.
[2] Port Mitigation Grant Program, http://www.polb.com/civica/filebank/blobdload.asp?BlobID=7766.

Northwest Ports

The Northwest Ports Clean Air Strategy[3] is a collaborative effort among the Port of Seattle, Port of Tacoma and Port Metro Vancouver. During 2009-15, the ports offered an At-Berth Clean Fuels Vessel Incentive Program (ABC Fuels Program) providing financial incentives to frequently calling vessels that burned 0.5% (or less) sulfur fuels in auxiliary engines and boilers while at berth. The program was administered by the Puget Sound Clean Air Agency. The tiered incentive amount ranged from $200-$7,400 depending on volume of less than 0.5% or less than or equal to 0.1% sulfur fuel burned while at-berth. In January 2015, the International Maritime Organization instituted a rule that superseded the ABC Fuels Program called the North American Emissions Control Area, which requires all vessels operating within 200 nautical miles of U.S. coastlines to use fuel with a sulfur content of 0.1 % or less, which met the requirements of the overall Clean Air Strategy.

The Ports of Seattle, Tacoma and Metro Vancouver have collective initiatives to promote cleaner air, minimize GHG emissions, and reduce fuel consumption via smart, efficient fleet management. Other measures implemented by the Port of Seattle include the following:

- Corporate emissions inventory and reporting
- Energy audits
- Sustainable procurement
- Vehicle fleet fuel efficiency upgrades
- Reducing commutes with alternate office locations and/or flex time schedules
- Collaboration with Western Washington Clean Cities Coalition on clean vehicle fleet initiatives, composting and/or recycling
- Energy conservation measures such as yard lighting retrofits, upgrades to heating systems, ventilation and/or air conditioning controls and employee awareness programs

The Port of Seattle also provides cruise and container lines the opportunity to be recognized through their Green Gateway Partners Award. This has been awarded to nine cruise and container lines for demonstrating participation in the ABC Fuels Program, plugging into shore power or demonstrating initiatives above and beyond existing regulations.

Port Authority of New York and New Jersey

The Port Authority of New York and New Jersey run the Ocean-Going Clean Vessel Incentive (CVI)[4] Program as a part of its Clean Air Strategy to encourage operators of ocean-going vessels to make voluntary engine, fuel and technology enhancements that reduce emissions beyond regulations set by the International Maritime Organization (IMO). The CVI provides financial incentives to ships that achieve a score of 20 points or higher; the criteria is based on the World

[3] Northwest Ports Clean Air Strategy, http://www.ecy.wa.gov/programs/air/cars/NWPCAS_2012_Progress_Report_7-8-13.pdf.

[4] Ocean-Going Clean Vessel Incentive Program, http://www.panynj.gov/corporate-information/pdf/111915-Clean-Vessel-Incentive-Program-AmendmentandExtension-Public.pdf.

Port Climate Initiative's Environmental Ship Index (ESI), a worldwide mechanism that awards vessels that exceed IMO standards. Financial incentives range from $1,500 to $2,500 per vessel call depending on their score. Vessels can also receive $1,000 per vessel call for utilizing Tier II engines and $2,000 per vessel call for Tier III engines.
In New Jersey, the port authority implemented online reverse auctions for electricity in which sellers of retail electricity supply compete for businesses. By aggregating roughly 250 electricity accounts, the savings achieved will reduce annual utility expenses by more than $2.2 million.

San Diego County, California
San Diego County's Green Building Incentive Program[5] offers incentives to promote the use of resource-efficient construction materials, water conservation and energy efficiency in new and remodeled residential and commercial buildings. These incentives include expedited plan checks, which can save approximately seven to 10 days on a given project timeline and a 7.5% reduction in plan check and building permit fees. The county has a Building Fee Schedule[6] that can be used to estimate fees for permits and applications for different permit types. Projects must meet one of the three resource conservation methods:

- Natural Resource Conservation: Straw-bale construction or recycled building materials
- Water Conservation: Gray water system
- Energy Conservation: Energy use exceeding California Energy Commission standards by 25%

San Francisco, California
The City and County of San Francisco have implemented incentives for green performance and mandatory standards for existing buildings. Incentives include priority permitting[7] and floor-area-ratio height waivers for Leadership in Energy and Environmental Design® (LEED) Gold and above. Priority permitting accelerates processing by placing the project at the front of the queue at each stage of the review process. Priority permitting can reduce the entitlement process by months. Eligible requirements include projects that create at least seven dwelling units, construct more than 10,000 square feet of nonresidential space or change the use of at least 25,000 square feet.

Water-efficient equipment retrofits qualify for grants based on the equipment cost and estimated water savings through a program run by San Francisco Water Power Sewer.[8] The grant assistance for water-efficient equipment retrofits provides two types of qualifying projects. The fixed water saving retrofit projects identify specific water-efficient equipment, estimated annual water savings per equipment type and the grant amount per equipment type. Incentives range from $545-$8,000. Custom retrofit projects are also incentivized on a case by

[5] Green Building Incentive Program, http://www.sandiegocounty.gov/pds/greenbuildings.html.
[6] Building Fee Schedule, http://www.sandiegocounty.gov/content/dam/sdc/pds/docs/pds613.pdf.
[7] City and County of San Francisco Priority Permitting, http://sfenvironment.org/article/larger-projects-commercial-amp-multifamily/priority-permitting.
[8] San Francisco Water Power Sewer, http://www.sfwater.org/index.aspx?page=512.

case basis and require metering 60 days before the equipment is installed and 60 days after installation. The project also must result in a minimum of 200 centum cubic feet (CCF) of annual potable water savings.

Boston, Massachusetts

The City of Boston is developing a green leasing program to align with the city's Greenovate Boston 2014 Climate Action Plan Update.[9] Boston's green leases include landlord-tenant agreements toward sustainability and environmental provisions, and contribute to the city's goal of reducing GHG emissions 25% by 2020. Additionally, Boston's Building Energy Reporting and Disclosure Ordinance (BERDO)[10] provides an opportunity to introduce energy use disclosure and reporting into the lease negotiation process.

Renew Boston's Small Business Direct Install[11] program provides businesses with an average monthly demand of less than 300 kW technical assistance and financial incentives to lower their energy costs. The program will pay for up to 70% of the total cost for measures including energy-efficient lighting and controls, high-efficiency mechanical equipment, natural gas measures and other energy-saving technologies.

Best practices from Boston include more landlord-tenant cooperation, education and outreach to real estate brokers and lawyers, joint BERDO and green lease outreach, using city and state buildings as project models, and increased collaboration with tenant build-outs. Tenant build-outs are an opportunity for architects and utilities to collaborate throughout the design and implementation phases of tenant improvements and/or alteration projects to ensure conformance to the overarching sustainability principles for the given jurisdiction.

New York City, New York

New York State Energy Research and Development Authority (NYSERDA) has been designated the administrator of funding for energy efficiency and load management programs. These programs are funded through a system benefits charge on the electricity transmitted and distributed by six of the state's investor-owned utilities.

NYSERDA administers the Commercial Existing Facilities Program[12] that provides prequalified and performance-based incentives. The prequalified incentives were tailored for smaller projects and offered up to $60,000 for purchasing energy equipment including lighting, HVAC, chillers, motors, variable frequency drives, commercial refrigeration, commercial kitchen equipment and washers, and interval meters. This track of the Commercial Existing Facilities

[9] Greenovate Boston 2014 Climate Action Plan Update, http://www.cityofboston.gov/eeos/pdfs/Greenovate%20Boston%202014%20CAP%20Update_Full.pdf.
[10] Building Energy Reporting and Disclosure Ordinance, http://www.cityofboston.gov/eeos/reporting/.
[11] Renew Boston's Small Business Direct Install Program, http://www.renewboston.org/businesses/energyefficiency/.
[12] NYSERDA Commercial Existing Facilities Program, http://www.nyserda.ny.gov/All-Programs/Programs/Existing-Facilities-Program/Electric-Efficiency-Incentives.

Program is currently closed as allocated funds were exhausted. The performance-based incentives are for larger projects that are able to produce verifiable electric or gas savings. Incentive amounts range from $0.10/kWh - $0.15/kWh depending on the annual kWh reduction of current annual usage at the facility. Projects must save at least 250,000 kWh to be eligible, and incentives cannot exceed 50% of the project cost.

The City of New York Energy Aligned Clause[13] created a financing structure where both the building owner and the tenant share the costs and benefits of energy retrofits. A Model Energy Aligned Lease Provision[14] was established to address the split incentive problem in which building owners incur the capital expenses associated with energy efficiency retrofits while tenants benefit from the energy savings. To resolve these concerns, an agreement was made between the building owner and tenant to have an energy specialist estimate the savings. Based on that estimate, the tenant's cost recovery would be limited to 80% of the predicted savings and the other 20% will create a performance buffer for the tenant to insure against underperforming retrofits.

Montgomery County, Maryland

Montgomery County, Maryland, provides Green Building tax credits[15] on new or extensively modified multifamily and commercial buildings that achieve one of the ten qualified ratings for energy-efficient buildings. The qualifying ratings include the U.S. Green Building Council's LEED-New Construction (LEED-NC), LEED-Core and Shell (LEED-CS), and LEED-Existing Building (LEED-EB) certified at the Silver level or higher. Also eligible are buildings that achieve an energy and environmental standard that the director of the Department of Permitting Services finds is equivalent to a Gold or Platinum rating of LEED-NC, LEED-CS, or LEED-EB. Tax credit amounts range from 10%-75% of the property tax owed on the building for between three and five years depending on the size of the building, certification type, and certification level.

Washington, District of Columbia

In Washington, D.C., the D.C. Green Building Act of 2006[16] requires all nonresidential, publicly funded buildings to meet the U.S. Green Building Council's LEED certification at the Silver level or higher. All new private development projects 50,000 square feet or larger are required to meet LEED certification at the Certified level or higher. The Department of Consumer and Regulatory Affairs (DCRA) offered an expedited permit review for green building projects that exceeded the Green Building Act requirements; however, due to the improvements made to

[13] The City of New York Energy Aligned Clause, http://www.nyc.gov/html/gbee/html/initiatives/clause.shtml.
[14] Model Energy Aligned Lease Provision, http://www.nyc.gov/html/planyc2030/downloads/pdf/energy_aligned_lease_official_packet.pdf.
[15] Green Building tax credits, http://www.montgomerycountymd.gov/finance/taxes/tax_credit_exempt.html#p19.
[16] D.C. Green Building Act of 2006, http://dcra.dc.gov/page/green-building-act-gba.

DCRA's permitting process, the expedited review became less of an incentive than anticipated. As a result, expedited review is no longer being offered.[17]

DCRA collects green building fees during the permit intake process. These fees are deposited into the Green Building Fund that is used for (a) staffing and operating costs to provide technical assistance, plan review, and inspections and monitoring of green buildings; (b) education, training and outreach to the public and private sector on green practices; and (c) incentives for private buildings. DCRA has not yet developed financial incentives for green buildings from this fund.

Best Practices and Recommendations

Based on existing models from various jurisdictions and recommendations from District staff, tenants, and stakeholders, the Center for Sustainability (CSE) recommends the following best practices for the District's sustainable incentives.

- Report energy use data using the U.S. Environmental Protection Agency's ENERGY STAR® Portfolio Manager® (Portfolio Manager), as required in the 2015 Utility Usage Reporting Ordinance
    - This best practice is already underway through the District's Utility Usage Reporting Ordinance, which was informed by benchmarking and transparency policies in New York City, Boston, Chicago, San Francisco, Berkeley, Washington, D.C. and a proposed policy in Los Angeles.
- Establish minimum eligibility requirements and performance standards for incentivized projects
    - This is a common requirement for sustainable incentive programs including the Port of Long Beach, Northwest Ports, San Francisco, San Diego County, New York City, Montgomery County, and Washington, D.C.
- Measure tenants against themselves to account for different building use types (e.g., industrial, commercial, hospitality) and varying energy reduction capacity
    - In order for the District to make sustainable incentives available to tenants with diverse businesses, buildings, budgets, and energy loads, it is recommended that a portion of incentive dollars be allocated based on improved performance measured against past performance. This will allow for more participation from different types of tenants.
- Incorporate a tiered incentive approach to encourage high performance
    - Tiered incentives provide options and flexibility, thereby encouraging applications for a variety of technologies while still rewarding the highest performance with

[17] Green Building Report, http://doee.dc.gov/sites/default/files/dc/sites/ddoe/publication/attachments/20120501_Green%20Building%20Report_FINAL.pdf.

greater incentives. A tiered approach is used for allocating incentives at the Northwest Ports, San Francisco, and New York City.

- Be flexible to allow for innovative projects
    - Providing flexible incentives, such as lease-based incentives for large-scale projects, will promote tenants to think big in planning sustainability projects. A flexible innovation-based approach can be seen in the programs offered by the Port of Long Beach, Boston, and New York City.
- Look ahead; retroactive incentives are not a best practice and do not stimulate new investments
    - None of the port and local government programs reviewed in this report offer retroactive incentives for projects completed in previous years.
- Allow tenants to bundle multiple projects/technologies for a larger incentive
    - Tenants can achieve greater carbon savings through projects that include multiple technologies and building systems. Both the tiered savings and flexible funding strategies can be structured to allow for bundled projects.

Recommendations for San Diego Unified Port District

The California Public Utilities Commission is currently engaged in an effort to transition its measurement and verification of energy savings from an "above code" approach to an "existing conditions" method. The above code approach only accounts for energy savings above Title 24, Part 6 building energy efficiency standards. The existing conditions approach uses the energy saved from replacing old equipment with new equipment.

Above Code Calculation
Energy savings = [Energy used by new HVAC] - [Energy used by code-required HVAC]

Existing Conditions Calculation
Energy savings = [Energy used by new HVAC] - [Energy used by old HVAC]

This transition, required by Assembly Bill 802, Williams, is meant to address the widening gap between aggressive energy codes and out-of-date equipment in buildings across the state. Although the District is not held to the same cost-effectiveness and energy-savings methodology required for ratepayer programs, CSE recommends the District align with the state's direction by adopting an "existing conditions" baseline. This approach is more straightforward and should help reduce the difficulty in calculating energy and water savings.

It is a priority for District staff and tenants to ensure that tenants across sectors have an opportunity to benefit from sustainable incentives; however, clear-cut energy-savings and GHG reduction benchmarks are necessary for the District to stay on track to comply with local and state climate goals and achievement of the District's CAP.

Appendix 1: Local Government and Port Incentive Programs

Program	Location	Incentive Type	What is Incentivized?	Incentive Value
Technology Advancement Program	Port of Long Beach and Port of Los Angeles	Project funding	• Projects that have a high probability of achieving significant emission reductions in criteria pollutants, are seeking verified technology status from CARB,[i] and present a strong business case for future successful technology commercialization	• Up to 50% funding for the project • 50% matching funding required
Port Mitigation Grant Program	Port of Long Beach	Grant	• Projects that lessen the impacts of port-related air pollution and to reduce emissions of GHGs[ii] • Three categories: ○ Schools and Related Sites ○ Healthcare and Senior Facilities ○ GHG Emission Reductions	• Varies from project to project • Provided grants from $2,000-$835,000
At-Berth Clean Fuels Vessel Incentive Program (Inactive)	Port of Seattle, Port of Tacoma and Port Metro Vancouver	Tiered financial incentives	• Frequently calling vessels that burn 0.5% (or less) sulfur fuels in auxiliary engines and boilers while at berth	• $200-$7,400 depending on volume of <.5% or ≤.1% sulfur fuel burned while at-berth • Amount was to offset fuel cost differential
Ocean-Going Clean Vessel Incentive Program	Port Authority of New York and New Jersey	Tiered financial incentives	• Ocean-going vessels that make voluntary engine, fuel, and technology enhancements that reduce emissions beyond regulations	• 20-34 points: $1,000/call • 35-44 points: $1,500/call • 45 or more points: $2,500/call • Tier II Engine: $1,000/call • Tier III Engine: $2,000/call
Green Building Incentive Program	San Diego County	Expedited plan checks and reduction of fees	• Projects that meet one of the three resources conservation methods: ○ Straw-bale or recycled content construction (either 20% or more of building materials contain an average of 20% or more recycled content or at least one primary building material is 50% or more recycled) ○ Gray water system ○ Energy use that exceeds CEC standards by 25%	• Reduced plan check turnaround time (approx. 7-10 days reduction) • 7.5% reduction in plan check and building permit fees (fees vary per project)
Priority Permitting	City and County of San Francisco	Priority permitting	• Projects that achieve LEED gold or higher • Projects must create at least 7 dwelling units, construct more than 10,000 square feet of non-residential space, or change the use of at least 25,000 square fee	• Priority permitting can reduce the entitlement process by months
Grant Assistance for Water Efficient Equipment Retrofits	City and County of San Francisco	Grant	• Eligible projects must achieve a water savings of 200 CCF[iii] (149,000 gallons) or more a year to qualify • Two types of equipment retrofits accepted: ○ Fixed Water Saving Retrofit Projects ○ Custom Retrofit Projects	• Grant funding available for $1.00 per CCF over a 10-year lifespan up to 50% of the project's equipment costs, with a maximum amount of $75,000 per project

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Program	Location	Incentive Type	What is Incentivized?	Incentive Value
Direct Install Program	City of Boston	Technical assistance and financial incentives	• Energy efficiency upgrades for businesses whose average monthly demand is less than 300kW	• Up to 70% of the total installed cost and are paid directly to the vendor
Commercial Existing Facilities Program	State of New York	Performance-based incentives	• Cost-effective energy efficiency projects that deliver verifiable annual electric energy savings • All projects must include at least two eligible measure categories per site: ○ Lighting and Lighting Controls ○ HVAC and HVAC Controls (including Chillers) ○ Motors and Variable Frequency Drives (that are not part of the HVAC system) ○ Monitoring-Based Commissioning ○ Building Envelope Improvements ○ Energy Management Advanced Controls Systems ○ Elevators	• $0.10/kWh – Electric efficiency improvements cause annual kWh reductions less than or equal to 30% of current annual usage at the facility • $0.12/kWh – Electric efficiency improvements cause annual kWh reductions greater than 30% but less than or equal to 50% of current annual usage at the facility • $0.15/kWh – Electric efficiency improvements cause annual kWh reductions greater than 50% of current annual usage at the facility
Green Building Tax Credit	Montgomery County	Property tax credit	• New or extensively modified multifamily and commercial buildings that achieve a Silver rating or higher in USGBC's: ○ LEED-NC[iv] ○ LEED-CS[v] ○ LEED-EB[vi]	• Tax credit amounts range from 10-75% of the property tax owed on the building for between three and five years depending on the size of the building, certification type, and certification level
Green Building Act of 2006	Washington, D.C.	Expedited permit review (inactive)	• Projects that exceeded the requirements of the Green Building Act of 2006	• Expedited review became less of an incentive as permit process became more streamlined ○ Led to discontinuation of the expedited permit review

Note: [i]California Air Resources Board (CARB); [ii]greenhouse gas (GHG); [iii]centum cubic feet (CCF); [iv]LEED-New Construction (LEED-NC); [v]LEED-Core and Shell (LEED-CS); [vi]LEED-Existing Building (LEED-EB)

As a mission-driven nonprofit organization, CSE works with energy policymakers, regulators, public agencies and businesses as an expert implementation partner and trusted information resource. Together, we are the catalysts for sustainable energy market development and transformation.