



Engaging Tenants on Energy Conservation: Real World Examples and Best Practices



Presented by:



Los Angeles
Department of
Water & Power



Housekeeping



- Webinar will be Recorded
- Attendee Lines will be Muted
- Submit Questions During Session via the Chat Box
- Q&A Session at the End of Webinar

The LA Better Buildings Challenge



The LA Better Buildings Challenge





Moderator



David Hodgins
Executive Director
LABBC

Speakers



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Center for Building
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Urban Land Institute



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Director of
Sustainability
CommonWealth
Partners

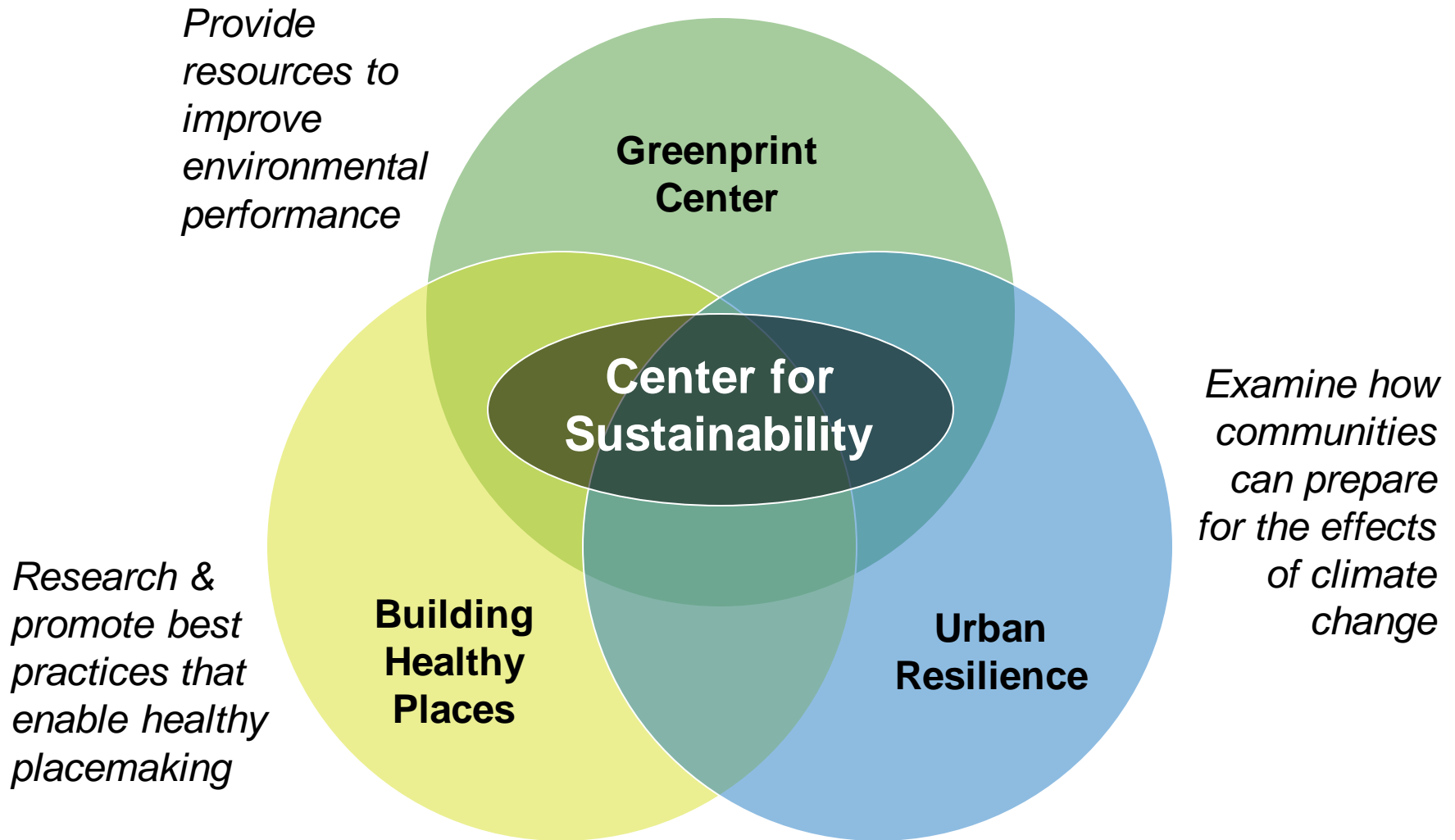
Learning Objectives



- Learn how the ULI TEOP framework can be adapted to your unique situation
- Gain insights on who to involve, when, and how to frame the interactions
- Identify opportunities to integrate energy efficiency into your leasing and TI build-out processes



Sustainability at the Urban Land Institute



Tenant Energy Optimization Program (TEOP)



- Free and open program
- A returns-driven, 10 step process (across three phases) to embed energy efficiency decisions into tenant space design and construction
- Piloted in 10 tenant fit-outs, documents in case studies
 - Energy savings of 30-50%
 - Payback period of 3-5 years
 - Average IRR of 25%

TenantEnergy.ULI.org

TEOP 10 Steps help prepare for certifications



| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|-------|---------------|------------------------|------------------------------|--------------------------------|---------------------------------------|----------------------|-------------------------------|---------------------|---------------------------------|---------------------|
| Step | Select a team | Select an office space | Set energy performance goals | Model energy reduction options | Calculate projected financial returns | Make final decisions | Develop a post-occupancy plan | Build out the space | Execute the post-occupancy plan | Communicate results |
| Phase | Pre-Lease | | Design and Construction | | | | | Post-Occupancy | | |



Proven Business Value

| Company | Leased area (SF) | Added cost (per SF) | Energy reduction | Total savings | ROI | Payback (years) |
|------------------------|------------------|---------------------|------------------|---------------|------|-----------------|
| Bloomberg | 20,000 | \$3.06 | 10.5% | \$173,880 | 140% | 2.5 |
| Coty Inc. | 80,000 | \$0.71 | 30.7% | \$716,148 | 328% | 2.7 |
| Cushman & Wakefield | 7,500 | \$3.25 | 47.5% | \$87,862 | 359% | 1.7 |
| Estée Lauder Companies | 10,000 | \$1.29 | 12.1% | \$15,862 | 42% | 3.7 |
| Global Brands Group | 137,000 | \$0.98 | 11.8% | \$438,090 | 126% | 4.6 |
| LinkedIn Corp. | 36,000 | \$2.63 | 31.3% | \$153,000 | 23% | 6.4 |
| NYSERDA | 15,200 | \$2.42 | 39.0% | \$188,017 | 179% | 3.6 |
| Reed Smith | 117,000 | \$1.31 | 44.5% | \$1,126,498 | 410% | 2.2 |
| Shutterstock | 8,600 | \$2.63 | 22.9% | \$369,897 | 40% | 6.1 |
| TPG Architecture | 40,000 | \$2.01 | 21.6% | \$275,372 | 162% | 3.2 |



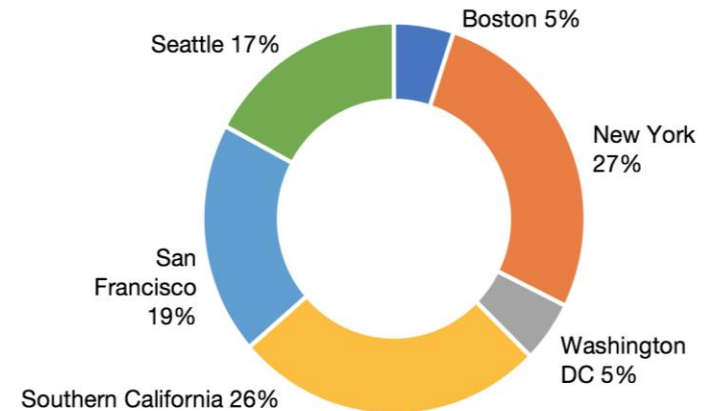
CommonWealth Partners

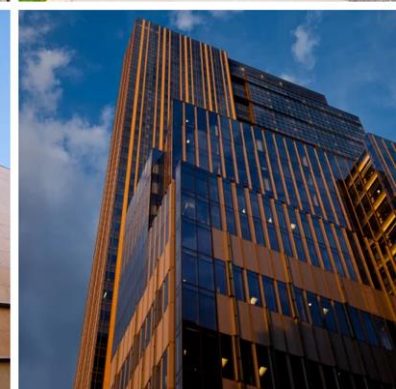
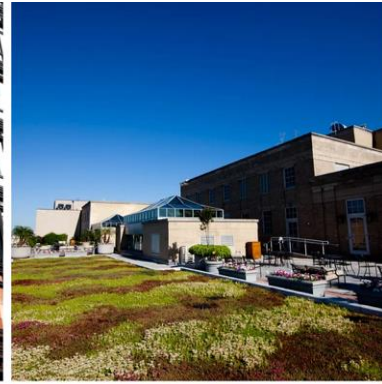
Jessica Loeper, LEED AP O+M, MURP
Director of Sustainability, CommonWealth Partners
May 22, 2019



COMMONWEALTH PARTNERS OVERVIEW

- Vertically integrated, privately owned, real estate development management organization
- 10.5 million square feet across 16 multi-tenant Class-A office assets as of December 2018
- Over 30,000 building occupants
- Corporate sustainability program established in 2013
- Over 10 sustainability tenant engagement events each year since 2014
- ENERGY STAR Partner of the Year since 2018





COMMONWEALTH PARTNERS ACCOMPLISHMENTS



10.5M

GFS with 8.8 million LSF
premiere Class-A office
space



100%

of portfolio LEED certified
in 2018



1st

2018 GRESB
Health & Well-being
Module



22.8%

Energy use intensity
reduction since 2013



16.6%

Cumulative water use
intensity reduction
from 2013 baseline



Landlord Gold Rating
in 2018



99%

of portfolio benchmarked
on ENERGY STAR in
2018



2nd

ENERGY STAR
Partner of the Year
(2018 & 2019)



54%

of portfolio (by GFA) is
LEED Platinum



54%

Cumulative waste
diversion
from 2013 baseline



44.7%

Cumulative CO2 use
intensity reduction
from 2013 baseline



21

Sustainability Focused
Policies



THE 10 STEP PROCESS

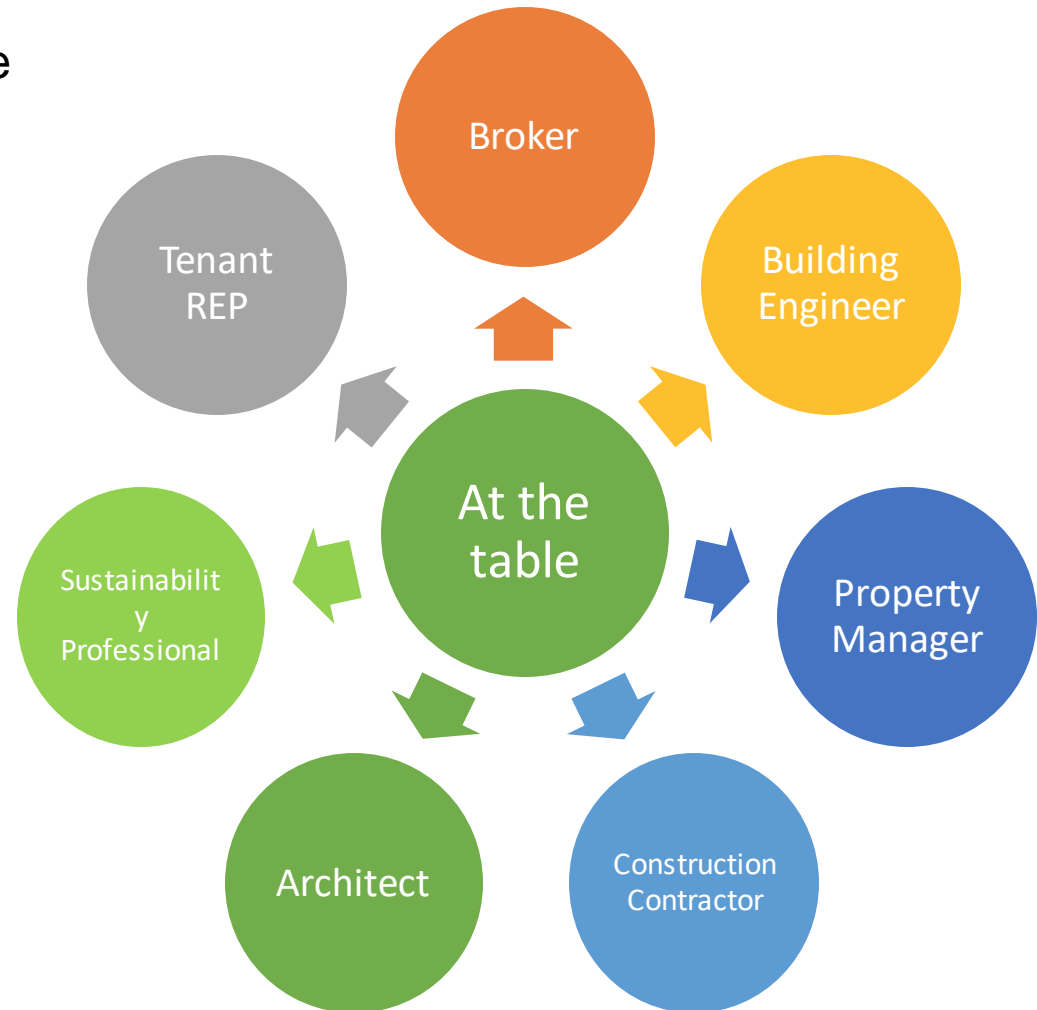
Pre-lease – Steps 1 & 2

Design and Construction/Renovation – Steps 3 – 8

Post-occupancy – Steps 9 & 10

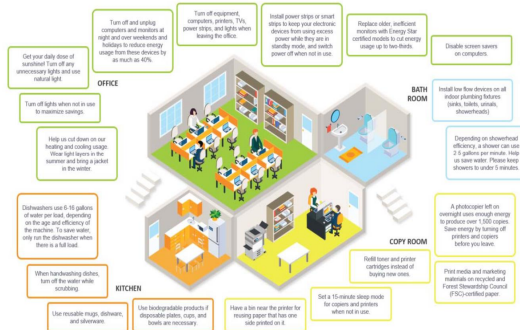
STEP 1: SELECT A TEAM

- Use a broker with experience in sustainability
- Add other team members to ensure an integrated and efficient approach



STEP 2: SELECT AN OFFICE

- Choose an efficient base building
- Negotiate lease terms that allow energy efficiency improvements
 - Pass through cost recovery clause
 - Utility data sharing
 - Split incentive dilemma
- Varying lease structures based on grandfathered tenants
- Identify Tenant Engagement Strategies



SAMPLE GREEN LEASE LANGUAGE

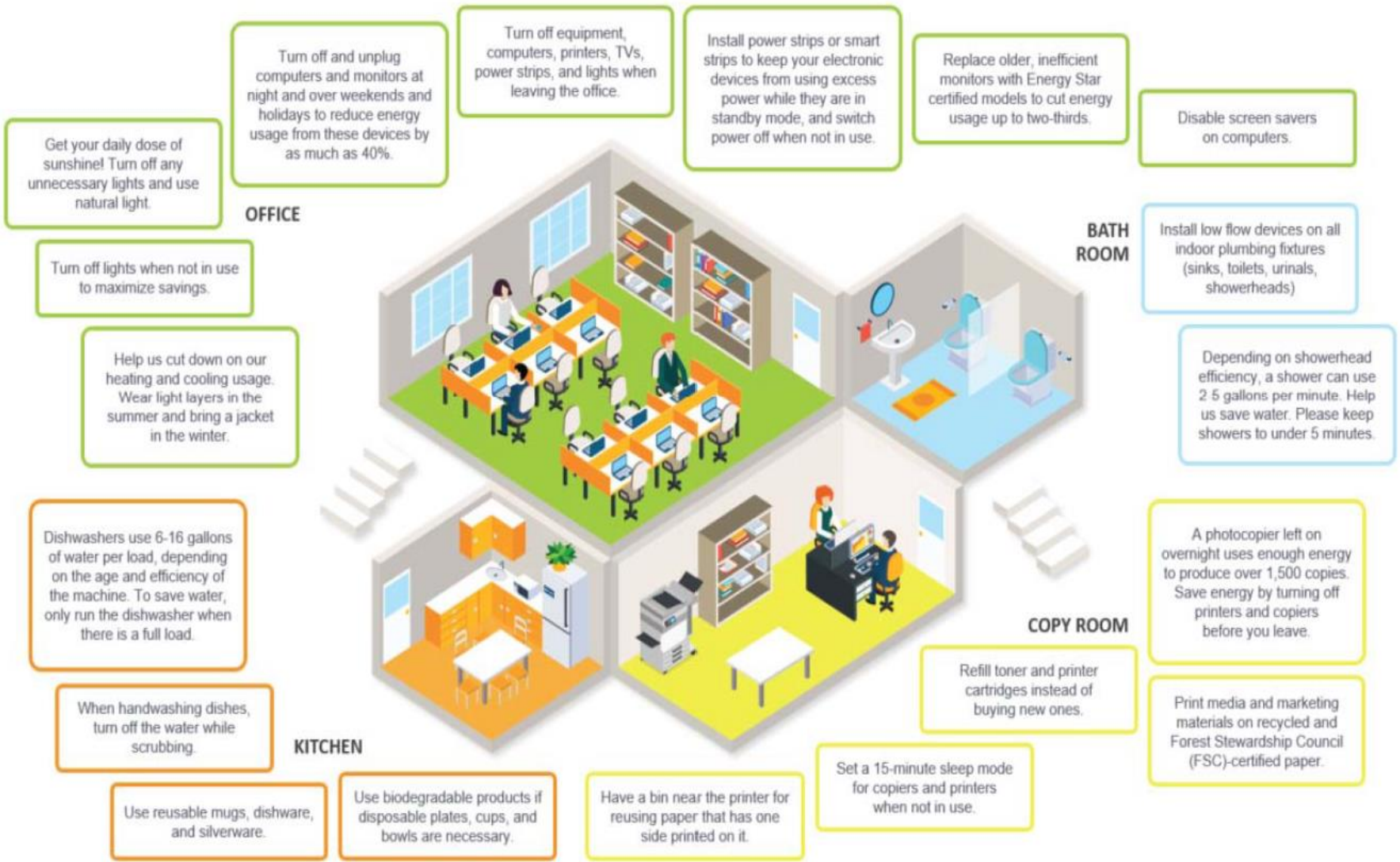
✓ *Sharing of utility data*

Utility data is shared for all directly controlled assets for Environmental Management Purposes. For properties that are tenant controlled, encourage tenants to document all utility bills within ENERGY STAR and give the landlord access to view energy usage in the ENERGY STAR website to verify overall energy consumption among all tenants.

✓ *Cost-recovery for energy-efficiency-related capital improvements*

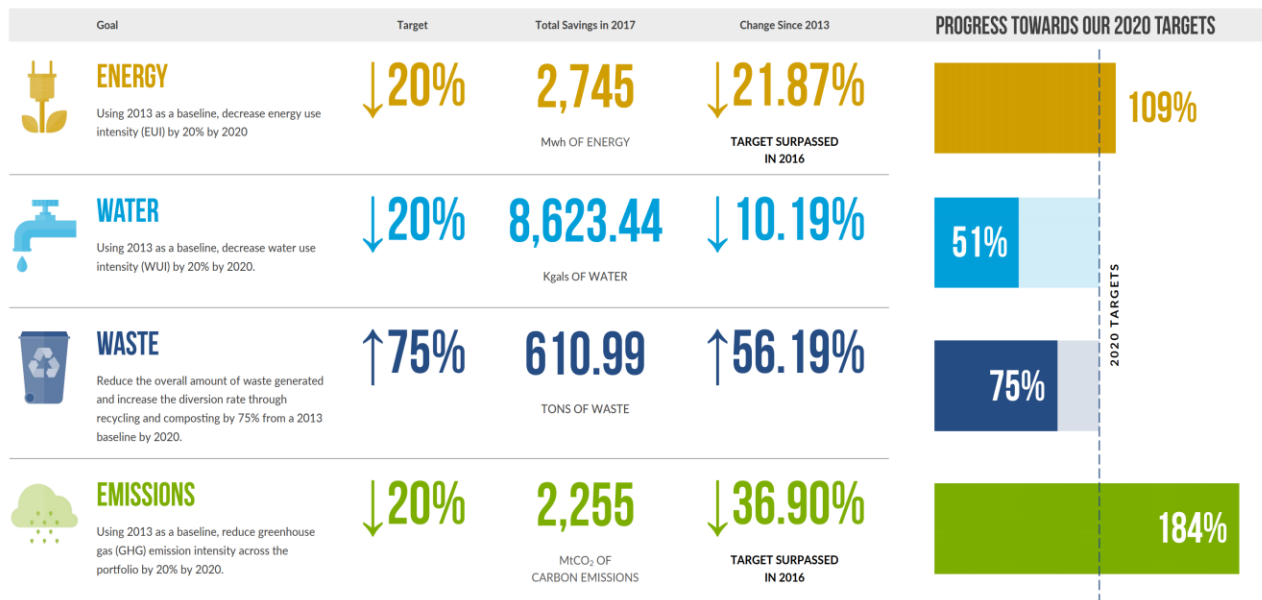
Operating Costs may include the costs for improvements made to the Project which, although capital in nature, are expected to reduce the normal operating costs (including all utility costs) of the Project, as amortized using a commercially reasonable interest rate over the time period reasonably estimated by Landlord to recover the costs thereof taking into consideration the anticipated cost savings, as determined by Landlord using its good faith and commercially reasonable judgment.

Top ways to green your office



STEP 3: SET ENERGY PERFORMANCE GOALS

- Consider overall corporate sustainability commitments and investments
- Consider existing performance targets and goals of the property/landlord
- Property-specific initiatives and tenant-specific impacts

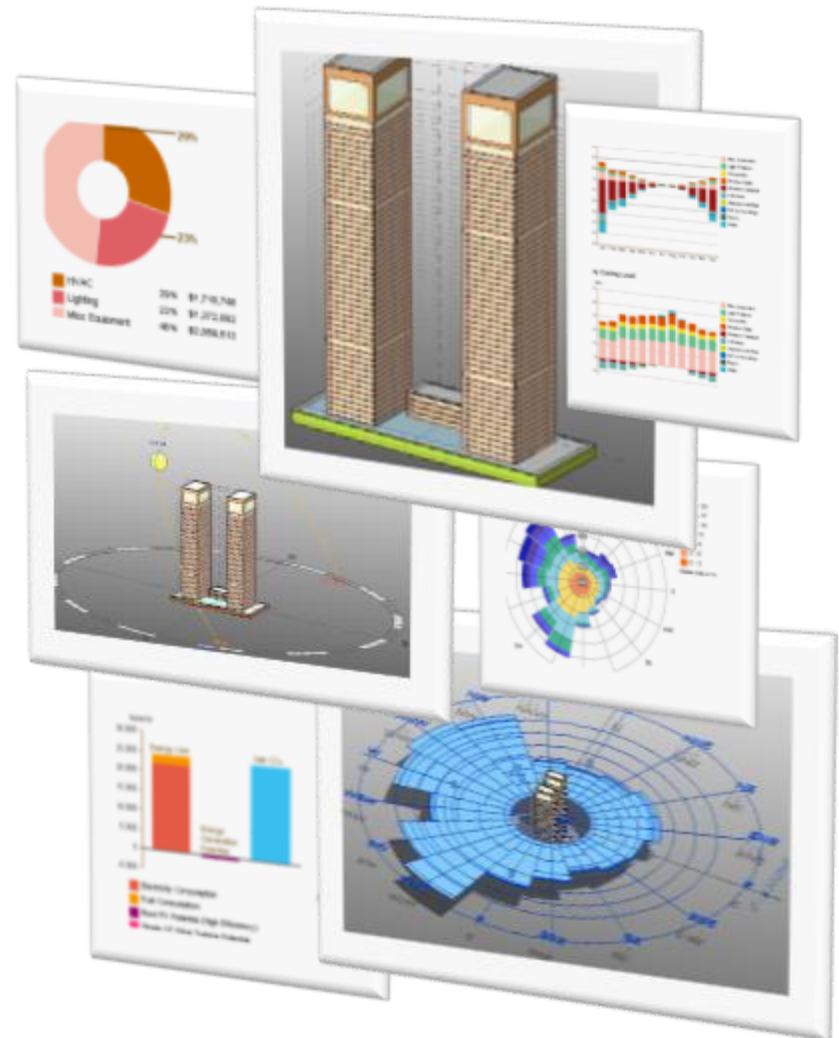


Tenant Resources

- ✓ Green Lease Language
- ✓ Green Tenant Guide
- ✓ Green Tenant Improvement Guide
- ✓ Cal Green Title 24 Compliance

STEP 4: ANALYZE ENERGY REDUCTION OPTIONS

- Develop a Menu of Measures
- Project performance of different combinations and iterations of measures
- Energy modeling data is used to:
 - Analyze retrofit options to achieve the greatest energy savings within budget
 - Achieve aggressive performance targets
 - Compare Model Results vs Actual Data (Utility Bills) to identify potential anomalies with energy consumption
 - Assist in getting financing & rebates
 - Select mutually exclusive investments
 - Balance energy performance optimization, carbon footprint reduction, energy savings, and positive new present value

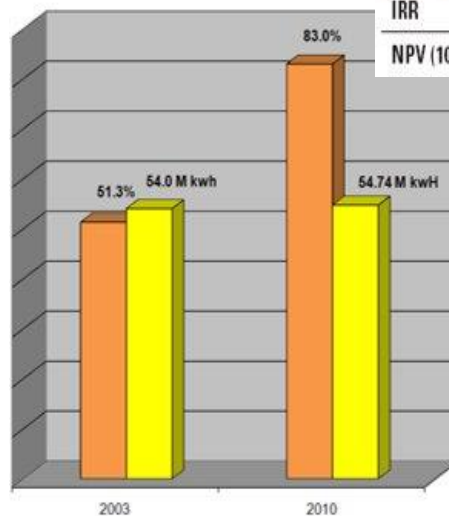


STEP 5: CALCULATE PROJECTED FINANCIAL RETURNS

- Develop a baseline of existing building consumption uncover added value
- Review incremental costs and available incentives
- Use Value Analysis Tool
- Analyze IRR, ROI and payback
- Failure to recognize business-as-usual investments is a barrier to efficiency
- Capital investments become *avoided future costs* when replaced by efficiency investments

Using NPV to choose between mutually exclusive investments (sample analysis)

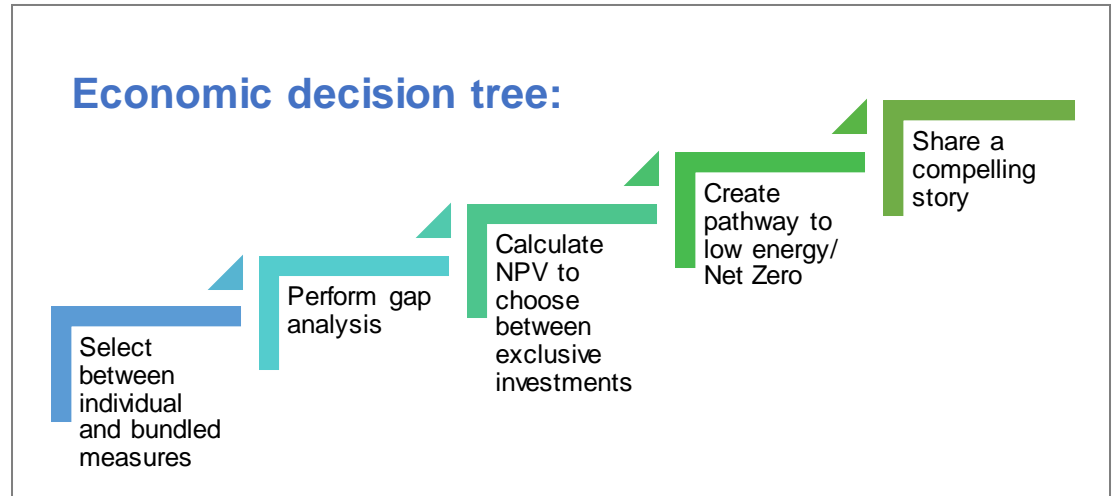
| Year | Option A: occupancy sensors | | Option B: central time clock | |
|-------------------------|-----------------------------|---------------------|------------------------------|---------------------|
| | Initial investment (\$) | Energy savings (\$) | Initial investment (\$) | Energy savings (\$) |
| 0 | -42,000 | — | -9,000 | — |
| 1 | — | 12,200 | — | 3,550 |
| 2 | — | 12,200 | — | 3,550 |
| 3 | — | 12,200 | — | 3,550 |
| 4 | — | 12,200 | — | 3,550 |
| 5 | — | 12,200 | — | 3,550 |
| 6 | — | 12,200 | — | 3,550 |
| 7 | — | 12,200 | — | 3,550 |
| 8 | — | 12,200 | — | 3,550 |
| 9 | — | 12,200 | — | 3,550 |
| 10 | — | 12,200 | — | 3,550 |
| IRR | | 26.2% | | 37.9% |
| NPV (10% discount rate) | | 80,000 | | 26,500 |



CNP Case Study I
 2003/2010 Electrical Consumption 61.6%
 Increase in occupancy with only a 1.3% increase in kWh consumption due to deep energy saving retrofits. Over \$12M Savings since 2003

STEP 6: select optimal package

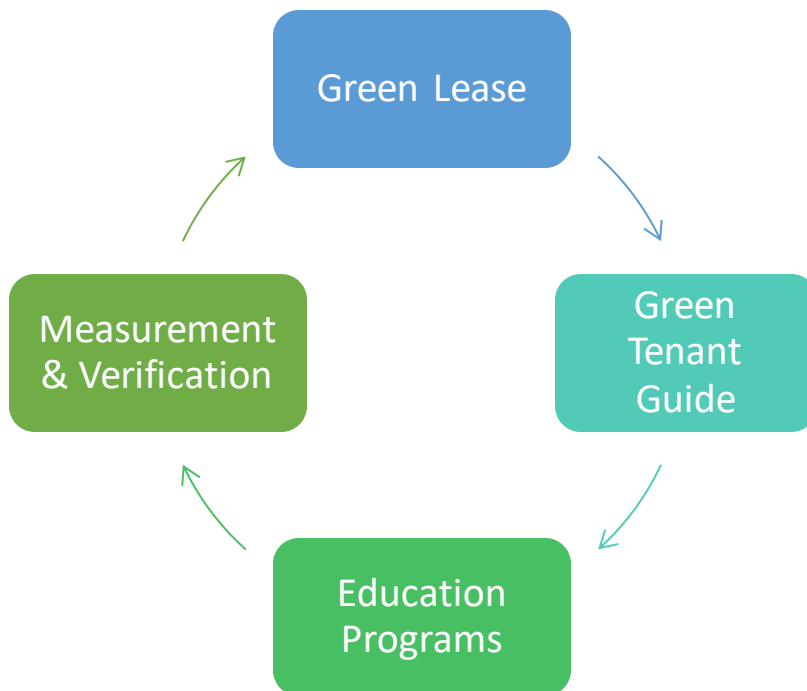
- **Mutually exclusive investments:** projected savings, energy modeling results, NPV, payback, lease type and leasing periods
- **Financing mechanisms:** loans and bonds, TI allowance, pass through operating expenses through leases, performance contracting (ESCO) and PACE financing, etc.
- **Integrated performance contract:** rebates, incentives and innovative financing structures



| Project | Budget Cost | Rebate | Savings/Year | ROI |
|-----------------------|-------------|---------|--------------|-----|
| LED Lighting Retrofit | \$300,000 | 44,918 | \$155,616 | 6% |
| Occupancy Sensors | \$42,000 | - | \$12,200 | 4% |
| Timeclocks | \$9,000 | - | | |
| Motion Sensors | \$42,000 | \$2,000 | \$12,200 | 4% |
| Water Management | \$145,732 | \$5,396 | \$31,287 | 22% |

STEP 7: develop an occupancy plan

- Address needs for performance monitoring and occupant training

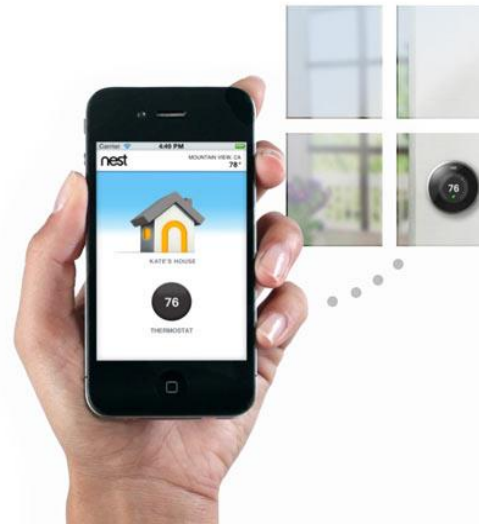


Green Leasing Checklist for landlords and tenants:

- ✓ Financial responsibility and ownership of benefits of green investments
- ✓ ENERGY STAR Rating
- ✓ LEED Certification
- ✓ Strategies for reducing travel demand and car dependency
- ✓ Efficient water management
- ✓ Management of energy use and greenhouse gas emissions
- ✓ Purchase of Green Power
- ✓ Smart Metering
- ✓ Controllability of Systems
- ✓ Management of indoor environment quality
- ✓ Green Cleaning & maintenance
- ✓ Efficient waste management
- ✓ Sustainable Purchasing Policy
- ✓ Waste minimization and recycling
- ✓ Green TI Guidelines

STEP 8: implement tenant improvements

- Execute the planned energy efficiency projects
- Select “high-performance” contractor
- Select appropriate equipment, including digital meters
- Monitor construction to ensure proper installation and integration
- Connect meters to an energy management platform



STEP 9: IMPLEMENT POST-OCCUPANCY PLAN

- Measure and verify performance
- Perform ongoing maintenance
- Collect records of communications, activities & events
- Account for attendance, participation, social media

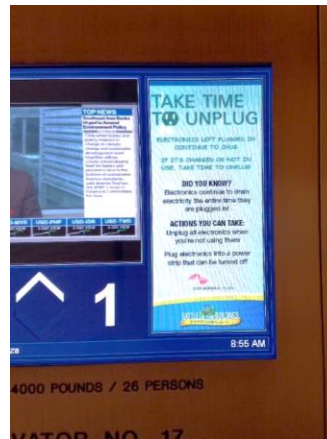
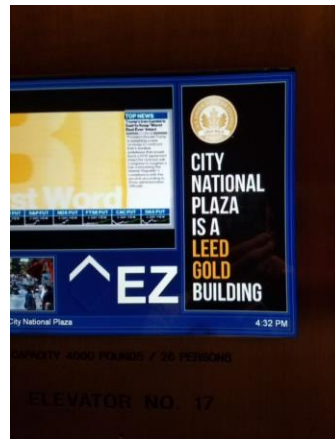
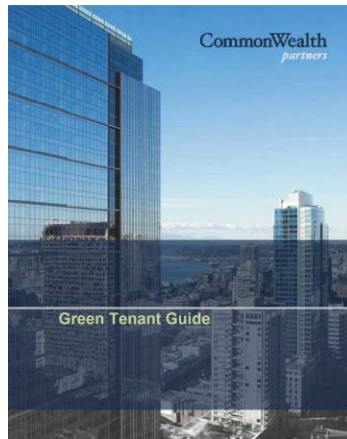
Stakeholder Engagement Programs

Internal Programs

- ✓ Sustainability resource site
- ✓ Employee email communications
- ✓ Sustainability newsletters
- ✓ Educational webinars
- ✓ Sustainability trainings
- ✓

External Programs

- ✓ Custom sustainability program branding
- ✓ Corporate sustainability website
- ✓ Annual sustainability report
- ✓ New construction and renovation guide
- ✓ Green retail guide
- ✓ Tenant surveys
- ✓ E-waste drives
- ✓ Earth day events
- ✓ Vendor and tenant memos
- ✓ Educational presentations
- ✓ Sustainability educational signage
- ✓ Case studies



EXAMPLE: GREEN OFFICE CHALLENGE

Green Office Challenge 2014

Company Name:
Project Address:

Y ? ? N 2 Stars: 25-45 points, 3 Stars: 46-65 points, 4 Stars: 66-85 points, 5 Stars: 86-100 points

0 0 0 0 Total Points: 100

| 0 | 0 | 0 | 0 | 0 | 12 |
|---|---|---|---|---|--|
| | | | | | Transportation |
| | | | | | Have an Alternative Commuting Transportation Program in place |
| | | | | | Percent of employees that take alternative transportation: 10% (2pts), 25% (3pts), 50% (4pts), 75%+ (5pts) |
| | | | | | Provide transit fare reimbursement for employee commutes |
| | | | | | Use teleconferences and videoconferences to reduce travel |
| | | | | | Benchmark and track business travel |
| | | | | | If office has vehicle, use alternative fuel, electric vehicle or hybrid |
| | | | | | Purchase emissions offsets for business travel and operations |

| 0 | 0 | 0 | 0 | 0 | 30 |
|---|---|---|---|---|---|
| | | | | | Energy & Atmosphere |
| | | | | | Maximize natural light, turn off unneeded lights |
| | | | | | Use glass partitions to increase natural light penetration on building interior |
| | | | | | Use compact fluorescent lights instead of incandescent lights |
| | | | | | Have task lighting at individual workstations: 10% (1pts), 25% (2pts), 50% + (3pts) |
| | | | | | Install lighting occupancy sensors to automatically turn off lights |
| | | | | | Remove one bulb from three-bulb fluorescent light fixtures |
| | | | | | Install power strips or smart strips to switch power off when not in use |
| | | | | | Turn off equipment, computers, printers, TVs, power strips and lights when leaving office |
| | | | | | Install ENERGY STAR Equipment: 10% (2pts), 25% (3pts), 50% (4pts), 75%+ (5pts) |
| | | | | | Place heat producing equipment away from thermostats |
| | | | | | Label light switches with "Please turn off lights when not in use" |
| | | | | | Reduce the time delay before computers revert to power saving mode |
| | | | | | Set 15 minute sleep mode for copiers and printers when not in use |
| | | | | | Disable screen savers on computers |
| | | | | | Lower blinds in the summer and raise them in the winter |
| | | | | | Set timer on vending machines |
| | | | | | Turn off vending machine lights |
| | | | | | Request vending company performs regular maintenance and annual coil cleaning |
| | | | | | Send 'Power Down' e-mails with Energy Saving Checklists before breaks and holidays |
| | | | | | Conduct appliance audit, remove unnecessary equipment |
| | | | | | Perform a lighting audit for types and numbers of lights |
| | | | | | Ask property management to program building automation to match particular usage patterns |
| | | | | | Install Sub-metering devices |
| | | | | | Keep windows and doors closed to prevent the loss of heated / cooled air |

| 0 | 0 | 0 | 0 | 0 | 20 |
|---|---|---|---|---|---|
| | | | | | Materials & Resources |
| | | | | | Have reusable mugs, dishware and silverware available in break rooms and kitchens |
| | | | | | Use biodegradable products for disposable plates, cups and bowls |
| | | | | | Standardize workplace size, layouts & furniture |
| | | | | | Do not purchase Styrofoam products |
| | | | | | Set all office copiers to default print double sided |
| | | | | | Reduce bottled water and canned soft drink purchase |
| | | | | | Recycle at least 50% of remodeling or construction |
| | | | | | Use (FSC) certified paper with recycled content |
| | | | | | Encourage re-usable containers for bag lunches |
| | | | | | Have annual e-waste collection programs that do |
| | | | | | Convert paper forms to electronic forms to reduce |
| | | | | | Actively participate in recycling programs |
| | | | | | Refill toner and printer cartridges |
| | | | | | Participate in community recycling events |
| | | | | | For external printing, request soy vegetable base |
| | | | | | Print media and marketing materials on recycled |
| | | | | | Each desk, printer & kitchen has recycling/trash |
| | | | | | Cancel unwanted paper publications and subscriptions |
| | | | | | Replace paper towels for hand dryers |
| | | | | | Set quantifiable goals for paper use reduction |
| | | | | | Have a bin available near the printer for recycling |
| | | | | | Properly dispose of furniture and office equipment |

| 0 | 0 | 0 | 0 | 0 | 10 |
|---|---|---|---|---|---|
| | | | | | Indoor Environmental Quality |
| | | | | | Have an IAQ Management Program |
| | | | | | Use only CRI certified carpet and carpet pad with |
| | | | | | Use water based interior paints with low or no VOC |
| | | | | | Use interior materials with low or no volatile organics |
| | | | | | Use furniture and seating certified by Greenguard |
| | | | | | Use composite wood and laminate adhesives with |
| | | | | | Purchase Green Seal or Environmental Choice ca |
| | | | | | Occupants have access to daylight and views 10% |

| 0 | 0 | 0 | 0 | 0 | 10 |
|---|---|---|---|---|---|
| | | | | | Innovation |
| | | | | | LEED Commercial Interiors Certification during re |
| | | | | | Update office personnel on green efforts regularly |
| | | | | | Shift from closed to open work plans with multiple |
| | | | | | Provide recycling education materials (signs, bins) |
| | | | | | Have an in-house LEED GA or Accredited Proffes |
| | | | | | Organize sustainability focused community servi |
| | | | | | Minimize walls and partitions in remodeling |
| | | | | | Create a green team with an office champion and |
| | | | | | Install low-flow devices on all indoor plumbing fix |
| | | | | | Track and report carbon emissions |
| | | | | | Other Innovative Strategies: List Strategy here (1) |



2018 Competition: Commonwealth Partners Green Office Challenge (Tenant Engagement Program)

Welcome to My Survey

1. Building Name

2. Building City

Energy & Atmosphere

- Maximize natural light, turn off unneeded lights
- Use glass partitions to increase natural light penetration on building interior
- Use compact fluorescent lights instead of incandescent lights
- Have task lighting at individual workstations. 10% (1pts), 25% (2pts), 50% + (3pts)
- Install lighting occupancy sensors to automatically turn off lights
- Remove one bulb from three-bulb fluorescent light fixtures
- Install power strips or smart strips to switch power off when not in use
- Turn off equipment, computers, printers, TVs, power strips and lights when leaving office
- Install ENERGY STAR Equipment 10% (2pts), 25% (3pts), 50% (4pts), 75%+ (5pts)
- Place heat producing equipment away from thermostats
- Label light switches with "Please turn off lights when not in use"
- Reduce the time delay before computers revert to power saving mode
- Set 15 minute sleep mode for copiers and printers when not in use
- Disable screen savers on computers
- Lower blinds in the summer and raise them in the winter
- Set timer on vending machines
- Turn off vending machine lights
- Request vending company perform regular maintenance and annual coil cleaning
- Send 'Power Down' e-mails with Energy Saving Checklists before breaks and holidays
- Conduct appliance audit, remove unnecessary equipment
- Perform a lighting audit for types and numbers of lights
- Ask property management to program building automation to match particular usage patterns
- Install Sub-metering devices
- Keep windows and doors closed to prevent the loss of heated / cooled air

STEP 10: COMMUNICATE RESULTS

- Perform ongoing reporting

http://citynationalplaza.info/pdf/flyer_CityNational_web.pdf

ENERGY STATS

City National Plaza Los Angeles, CA

ENERGY STAR Certified Building Since 2006

ENERGY STAR Score: **82 / 100**

OUTPERFORMS **82%** OF SIMILAR BUILDINGS NATIONWIDE

USES **40%** LESS ENERGY PER SQUARE FOOT THAN THE NATIONAL MEDIAN

Compared to the national median, we prevent **6,910 metric tons** of greenhouse gas emissions each year.

THIS BUILDING'S SAVINGS EQUAL:

- Carbon dioxide emissions from **827** homes' electricity use for one year
- Carbon sequestered by **8,133** acres of U.S. forests in one year
- Emissions from **1,467** passenger vehicles driven in one year

ENERGY STAR® is the simple choice for energy efficiency. For more than 20 years, EPA's ENERGY STAR program has been America's resource for saving energy and protecting the environment. Join the millions making a difference at energystar.gov.

LEARN MORE AT energystar.gov

CommonWealth partners

CITY NATIONAL PLAZA, LOS ANGELES

SUSTAINABLE CITY NATIONAL PLAZA

Sustainable attributes and amenities make Commonwealth Partner properties use less energy and water, reduce waste, increase efficiency, and improve tenant health and productivity. Our properties outperform 59% of similar buildings nationwide.

- BUS SHUTTLE & CARPOOLING**
Why waste gas when you can take a shuttle?
WALK SCORE: **55**
- INDOOR AIR QUALITY TESTING**
This building participates in annual indoor air quality testing to ensure a healthy breathing environment.
- LED LIGHTING**
All indoor and outdoor lighting in this building has been installed with low-energy LED lighting.
- LEED EBOM GOLD CERTIFIED**
This building has been determined by the US Green Building council to have a gold rating in sustainability, water efficiency, energy, material and resource usage, indoor environmental quality and innovation in design.
BIKE SCORE: **76**

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CommonWealth partners

CITY NATIONAL PLAZA, LOS ANGELES

YOUR SUSTAINABLE WORKPLACE

- Bus Shuttle/Carpooling
- City Demand Program
- Sustainable Purchasing Policy
- Green Cleaning Policy
- Smoking Policy
- Green Tenant Guide
- Building Resilience & Climate Change Guide
- Energy Efficiency Policy
- Water Efficiency Policy
- Stakeholder Engagement Policy
- Health and Wellbeing Guide
- Waste Management Policy

- LED LIGHTING
- E-WASTE RECYCLING
- WATER QUALITY TESTING
- INDOOR AIR QUALITY TESTING
- RECYCLING PROGRAM
- ENERGY EFFICIENCY
- GREEN CLEANING
- LOW VOC PAINTS

Keeping You Informed

We strive to keep you informed with a Green Tenant Guide with sustainable tips, bi-annual sustainability newsletter, and quarterly lobby events, e-waste and Earth Day events. Please see the information desk for more information.

PORTFOLIO-LEVEL RECOGNITION

- ENERGY STAR Partner of the Year
- Green Lease Leader
- 100% LEED Certified Portfolio-wide
- 99% ENERGY STAR Benchmark
- #1 Ranking on GRESB Health & Well-being
- #3 on GRESB Global Office Non-listed
- GRESB Greenstars 5 Years in a Row

CITY NATIONAL PLAZA RECOGNITION

- LEED EBOM Gold Certified & Recertified
- ENERGY STAR Label Annually
- BOMA 360
- LA's Green Business Certified

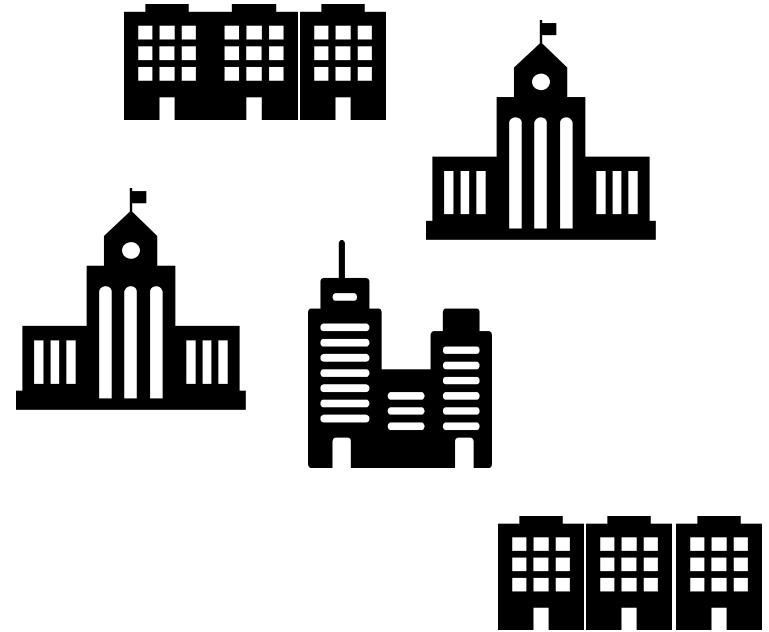
GRESB W WELLBEING LEED EBOM ifitwel EBIE

CommonWealth partners

Contact Our Leasing Agent
(555) 555-5555 | info@citynationalplaza.info
www.commonwealth-partners.com

GET INVOLVED

- Take the TEOP pledge – owners, tenants, architects, engineers – anyone can take the pledge
- Look out for TEOP adaptations to address all building types – coming soon!
- Having trouble building out a leased space sustainably? Are you a tenant that's already built out efficiently? Check out the TEOP website for resources.
- Reach out – we want to hear your story!



TenantEnergy.ULI.org/pledge

Summary



- Benchmarking and disclosure laws require whole building data, which means tenant EE matters
- ULI TEOP provides a template for engaging tenants on energy efficiency and sustainability.
- TEOP can be adapted to fit your company, no matter where you are in the building's life cycle.
- Download TEOP here: <https://tenantenergy.uli.org/>



QUESTIONS?

Contact



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