WORKPLACE CHARGING AT LEASED FACILITIES

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About BOMA International

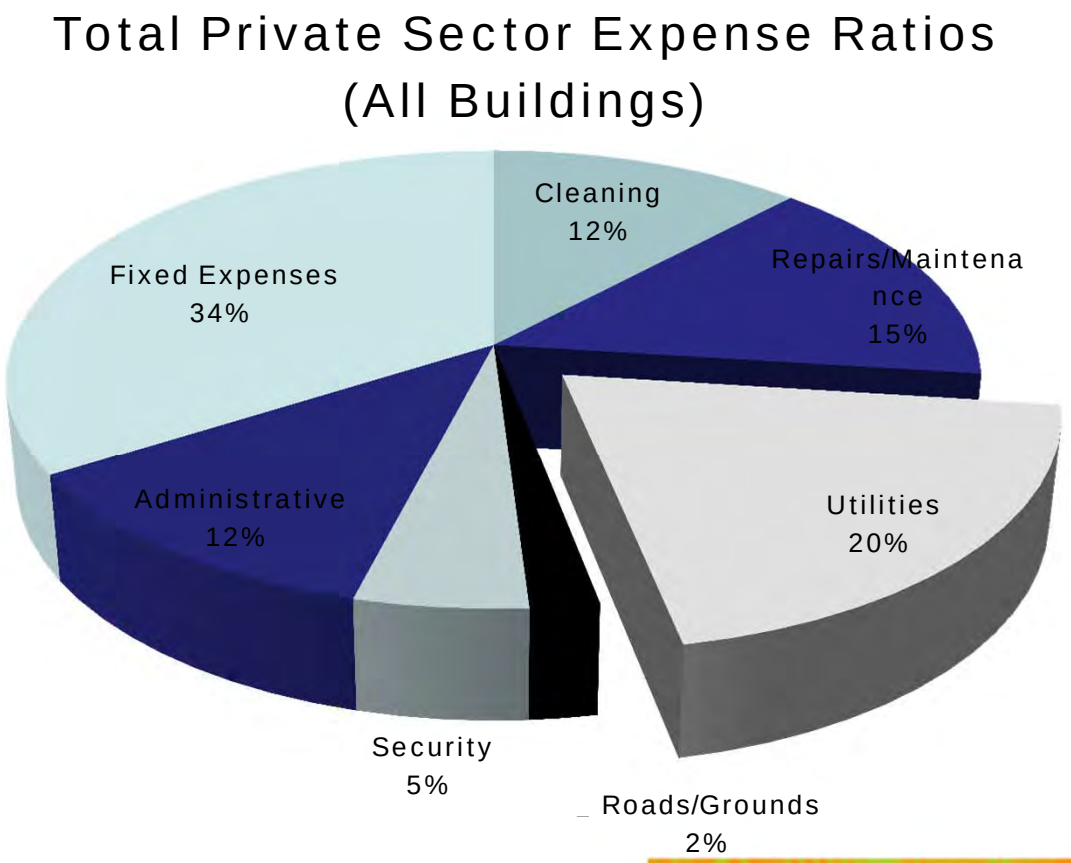
- 100+ local associations and affiliated organizations
- 17,000 individuals
- 9 billion square feet of office space
- $100 billion marketplace
- Key goal areas: advocacy, education, research, standards
- 32 staff members in D.C. and a combined 200+ staff across the U.S. and Canada

BOMA's Green Goals

Identify barriers

Find solutions

Motivate action




CNG

This Electric Roadster is Built for Live Ones

THE bigger the man, the more important his business, the more valuable his time.

This new Detroit Electric Roadster is *instantly* available day or night, winter or summer. It has a greater speed than any traffic ordinance allows, and ample mileage for *constant* all day use.

You will find it a pleasure to drive this car in traffic—you can always make a quick "get-away" on any one of five speeds instantly without gear shifting.

Did you ever figure how much it cost you to drive a large touring car around town? Electric current is now the *cheapest* form of motive energy.

The Detroit Electric has *all* the advantages of electricity, not only two or three of them.

Many large business houses are adopting Detroit Electrics for strictly business purposes.

The Detroit Electric is built in the largest and most modern plant in the world building electric automobiles exclusively. When you buy a Detroit Electric you get the benefit of big *production*, big *value*, and big *service*.

Illustrated catalogue showing eight different models sent upon request.

Detroit Electric 1913 Line

Model 42—	Clear Vision Brougham—4 or 5 passengers—seats facing forward	$3000.00
Model 37—	Extension Clear Vision Brougham—5 passengers—seats facing forward, —seats face to face	3600.00
Model 35—	Extension Brougham—4 passengers	
Model 36—	Brougham—2 to 4 passengers—seats face to face	2850.00
Model 39—	Business Man's Roadster—2 passengers	2700.00
Model 40—	Ladies Open Victoria—2 to 4 passengers	2350.00
		2300.00

The above prices are f. o. b. Detroit.

ANDERSON ELECTRIC CAR COMPANY
DETROIT, MICH., U. S. A.

Why Charge at the Workplace?

- Most charging at home
- Workplace / public charging important supplement / range extender – “topping off”
- Workplace / public charging sends a message / overcomes range anxiety
- The “market”
- Some % of people – think urban centers – don’t have garages or driveways

What's the Value Proposition for EV at Leased Facilities?

- Aligns with the Building Owner's philosophy
- Reinforcement of the brand's message
- All comes down to?

What's the Value Proposition for EV at Leased Facilities?

- The Tenant Mix
  - *Smaller Tenants vs Larger Tenants vs Corporate Headquarters*
- Tenant's Goals
  - *Talent Attraction*
  - *Talent Retention*
  - *Employee Efficiency*

What's the Value Proposition for EV at Leased Facilities?

- Landlord's Goal
  - *Get and Keep the Tenant*
- Perception Is Everything
  - *Perceived to be Green*
  - *Perceived to be an Innovator*
  - *Perceived to be interested in the goals of the EV driver*

Benefits of Hosting an EV Charging Station

- Customer Attraction and Retention
- Corporate Branding
- User Charging and Parking Fees
- Employee/Tenant Attraction and Retention
- Advertising Opportunities
- Certification Points
- Carbon offsets / Public Health / Energy Security
- Arguably the Right Thing to Do

Costs of Hosting an EV Charging Station

- Equipment
- Installation
- Maintenance
- Electricity / Demand Charges
- Fees
- Space
- Headaches
- **Who Pays?**

Things to Consider

Installation

- Locate EV unit between stalls where units can be shared
- Wall Mount unit if possible / space saver
- Consider overhead units w/retractable cords
- Power capacity to EV circuit large enough EMT/conduit and conductor size to expand EV program
- Install a sub meter on the power distribution to track consumption
- Tie into building automation system if possible – providing redundancy

Operation

- Safety wrap power cords (anti trip) / use orange or yellow interduct tubing
- Install locking receptacle covers to prevent customers plugging in cars with extension cords anywhere they want
- Keep spare parts on hand for rapid replacement

Headaches

> Property Managers will worry about
  - *Breakdowns*
  - *Fights for space or time*
  - *Unpaid Costs*

> They aren't really headaches

> Community of EV users

Education

- Install LED lighting overhead and celebrate the same (great test spots and great story)
- Institute a pricing plan that will motivate customers to move their car after the initial four hour charge
- Tell the World! Install appropriate signage and utilize Apps


SELF SERVICE AMENITY CENTER
compliments of Brookfield
brookfieldofficeproperties.com/sustainability
welcome!
TIRE INFLATION
WINDSHIELD WASH
CAR VACUUM
Brookfield
CHARGE
STATION
EV 2
EV 3

Synergistic Opportunities

> Hybrid / EV priority parking

> Carpool Parking Preference / Discounts

> Bicycle Commuter Friendly

> Mass Transit Coordination

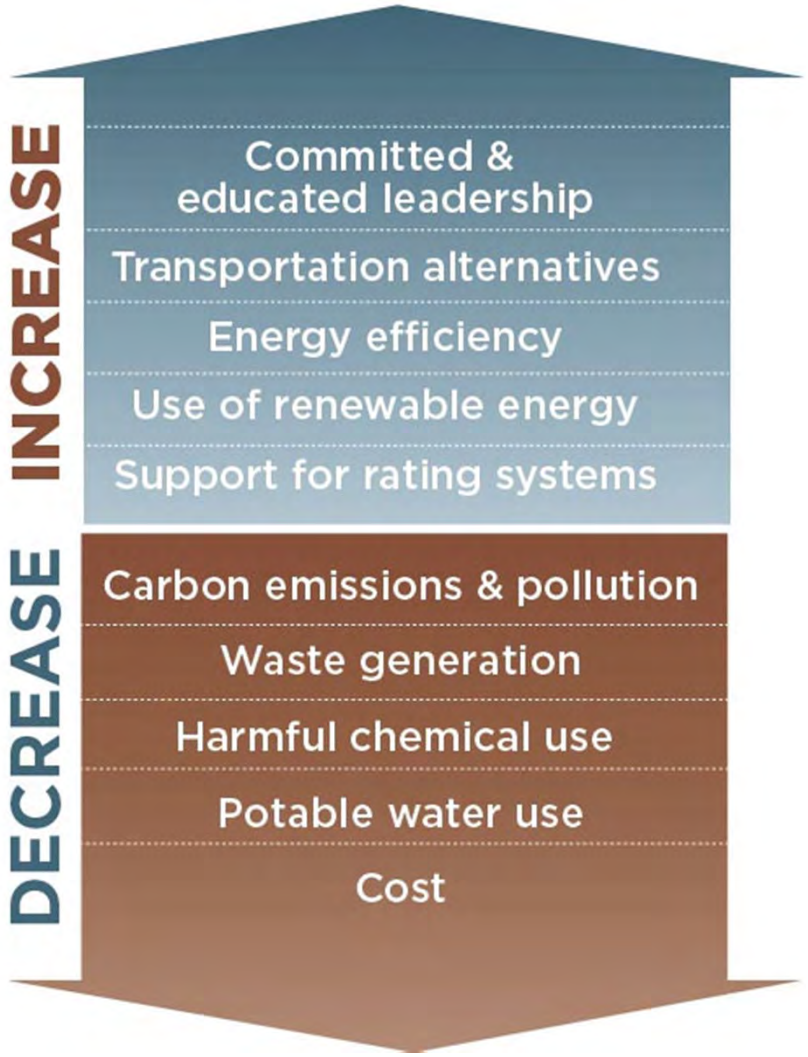
> Green Garage Certification

GREEN PARKING COUNCIL

GPC Partners

GREEN PARKING COUNCIL

Parking as a platform for sustainability



GREEN PARKING COUNCIL

www.greenparkingcouncil.org/certification

Section A: Management

Management

Describes garage operations and practices

Section A Measures	Pts
Parking Pricing	6
Shared Parking	6
TMO/TMA	4
Recycling Program	4
Sustainable Purchasing Program	2
Proactive Operational Maintenance	6
Cleaning Procedures - Occupied Spaces	2
Cleaning Procedures - Parking Decks	6
Building Systems Commissioning	8
Construction Waste Management	6
Regional Materials	6
Regional Labor	4
Reused/Repurposed/Recycled Materials	6
Third Party Sustainability Certification	12
Credentialed Management	4
Life Cycle Assessment	8

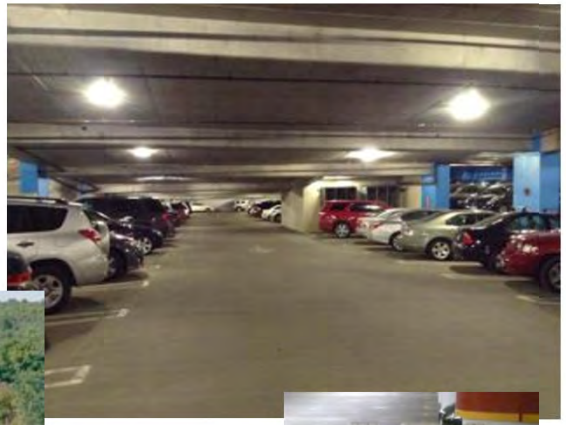
Section B: Programs

Programs

Describes the programs and features available to customers and the public

Section B Measures	Pts
Placemaking	6
Access to Mass Transit	4
Wayfinding Systems - External	4
Wayfinding Systems - Internal	4
Traffic Flow Plan	4
Carshare Program	6
Rideshare Program	6
Low-emitting and Fuel Efficient Vehicles	4
Alternative Fuel Vehicles	6
Alternative Fuel Fleet Vehicles	4
Bicycle Parking	6
Bicycle Sharing/Rental	6
Marketing/Educational Program	4

Section C: Technology/Design



Technology and Structure Design

Describes the structure and technologies at the garage

Section C Measures	Pts
Idle Reduction Payment Systems	4
Fire Suppression Systems	2
No/Low VOC Coatings, Paints, Sealants	2
Tire Inflation Stations	2
EV Charging Stations	6
HVAC Systems - Occupied Spaces	6
Ventilation Systems - Parking Decks	6
Lighting Controls	8
Energy Efficient Lighting System	8
Stormwater Management	6
Rainwater Harvesting	4
Greywater Reuse	2
Indoor Water Efficiency	2
Water Efficient Landscaping	2
Roofing Systems	6
Renewable Energy Generation	12
Design for Durability	6
Energy Resiliency - Storage	4

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Final Thoughts

- The market – your building, your tenants, density of residential, destination and business users near your facility
- Building code “resistance”
- Costs: charger, installation, maintenance, potential lost revenue, electricity
- Lease or own?
- Free or charge?
- Time limits? What do you do if time is exceeded?
- Who owns the project? Who is responsible for site maintenance?
- Who pays/Who benefits/Who can use it?

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