11 Greenprint Performance Report[™]

VOLUME 11 SUMMARY

Since 2009, the ULI Greenprint Center for Building Performance has been a leading source for collaboration among real estate leaders over a shared mission to reduce carbon emissions and increase building value across portfolios. This year is no different, with 2019 performance driving further advancements and innovations on sustainability in the built environment.





ULI Greenprint: Reducing Carbon, Building Value

Greenprint's mission is to lead the global real estate community toward value-enhancing carbon reduction strategies. From 2018 to 2019, Greenprint members collectively showed continued reductions in year-over-year carbon emissions, energy and water consumption, and landfill waste. In total, the portfolio reduced carbon emissions by 3.1 percent, continuing on the collective path to achieve the Greenprint goal of 50 percent carbon reductions by 2030 (with a 2009 baseline). These efforts support global greenhouse gas stabilization by 2030 in line with the goals of the Intergovernmental Panel on Climate Change.

An economic analysis of Greenprint's triple-bottom-line impact amounts to over US\$687 million (€579 million) since 2009. This includes financial savings from energy and water use reductions, as well as the environmental value of carbon emissions reductions and the social value of air pollution and water. In total, this represents a reduction of 1.434 million tons of CO² emissions from Greenprint members' properties.



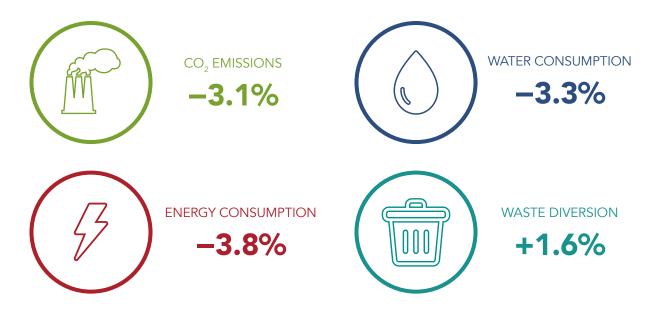
GREENPRINT CARBON REDUCTIONS OVER TIME (percentage)

"Greenprint represents an essential element in the toolkit for institutional investors such as those represented by my firm in measuring progress in reducing the environmental impact of the properties they own. The thesis that you can't reduce it if you can't measure it is applicable to the work done so well by Greenprint and its real estate members. While COVID-19 has often knocked climate change and climate risk out of the headlines in recent months, the talented staff at Greenprint and the Center for Sustainability and Economic Performance have continued to work with industry leaders to identify best practices that can help us achieve the goal of a net zero future."

-Mary Ludgin, senior managing director and director of global investment research at Heitman, and incoming chair of ULI's Center for Sustainability and Economic Performance

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Greenprint members continue to reduce carbon emissions by implementing energy efficiency improvements, waste reduction strategies, water efficiency measures, and renewable energy innovations.



Making the Business Case for Green Buildings

In 2019, Greenprint members invested over US\$50.1 million on sustainability projects spanning from tenant engagement to building envelope upgrades and commissioning/recommissioning. With a total project count clocking more than 6,000 individual projects, the momentum behind real estate sustainability does not appear to be slowing.

AXA Investment Managers (AXA IM) installed temperature sensors and a data and energy tracking system in its Finnish multifamily assets to optimize heating management. As part of a strategy to better manage costs and upgrades, AXA IM pays for heating costs in its Finnish multifamily properties, which minimizes the traditional landlord/ resident split incentive. The firm installed temperature sensors and a data and energy tracking system throughout a number of units in each property as a proof of concept and pilot project. The system helps eliminate unnecessary overheating and is expected to save 5 to 15

eliminate unnecessary overheating and is expected to save 5 to 15 percent energy consumption per property annually. This translates into US\$1.9 million/metric ton/year in additional net rent with savings representing 1 percent of gross rents across the company.



LaSalle Investment Management began an occupant waste diversion initiative at Shanghai International Plaza (SIP), a mixed-use office and retail property. All items are divided into wet waste, dry waste, recyclable waste, and harmful waste, and the property management team

assists tenants in handling large recyclable pieces. The SIP property management team was given training and guidance on correct sorting procedures, which were well received by the staff. LaSalle successfully engaged most of SIP's 88 tenants and continually works to find ways to incentivize waste and recycling sorting. In one instance, the property management team exchanged parking vouchers to cover the cost of parking for used batteries to encourage tenants to properly dispose of the e-waste. City Developments Limited (CDL)'s Singapore portfolio has water conservation as a top priority. CDL tackles water reduction with a holistic, life-cycle approach, analyzing its portfolio annually and installing water-efficient features and fittings widely across assets, such as flow regulators and self-closing taps. CDL's recently launched Piermont Grand Executive Condominium, a development with BCA Green Mark Platinum and Universal Design Mark GoldPLUS certifications, features a smart energy and water monitoring system that uses an advanced water leak detection algorithm to track and manage power and water use in common areas more efficiently. Such features at Piermont Grand enable potential water use savings of approximately 73,881 cubic meters annually.



Solar panels line the building envelope at EPIC, a Hudson Pacific Properties 13-story, class A office complex in Los Angeles, successfully marrying aesthetically pleasing design with carbon reductions. The asset is the first large commercial building in LA

to implement building-integrated photovoltaics (BIPV). Hudson Pacific worked with its architect to educate city planners about BIPV technology and its sustainability benefits throughout the design process. They partnered with the manufacturer to provide the window system as one complete package, which greatly streamlined the construction process. With a total of 310 solar panels on both the east and west sides to maximize sunlight exposure, the panels alone will supply 1.5 percent of the power for the building.

Real Estate: Get Involved in Greenprint

Greenprint is a global community of real estate owners, investors, and developers committed to leading the market and advancing sustainability across their portfolios. Greenprint represents over \$1.18 trillion (€1.0 trillion) in real estate assets under management, 10,190 properties, and 2.37 billion square feet (220 million sq m) of space in 32 countries.



MEMBER VALUE

- Participation in community of practice;
- Contribution to thought leadership;
- Recognition in reports, articles, and webinars;
- Asset-level benchmarking and data analysis; and
- ULI member benefits, including one full individual membership and one registration to a ULI annual meeting.

ANNUAL MEMBER FEES

Member fees are based on an organization's total assets under management (US\$):

- Under \$1 billion—\$5,000;
- \$1 billion to \$5 billion—\$7,500;
- \$5 billion to \$20 billion—\$10,000; and
- Over \$20 billion—\$15,000.

To learn more about Greenprint, reach out to **Greenprint-Info@ULI.org.**