

FEI PRESENTATION

Sustainability in the Construction Industry

■ ■ ■ April 17, 2022

Findorff
BUILDING & BEYOND

ABOUT US

Findorff is one of the Midwest's leading builders, and is proud of the successful long-standing relationships with our clients in Wisconsin.

PROUD OF OUR CLIENT RETENTION

83% REPEAT CLIENTS

SELF-PERFORM WORK

- » Concrete
- » Masonry
- » Carpentry
- » Steel Erection
- » Metal Stud and Drywall

ANNUAL REVENUE
\$900M+



OVER
1000
CONSTRUCTION PROFESSIONALS
- in Wisconsin -

130+ YEARS



of BUILDING EXPERIENCE

OFFICE LOCATIONS



MADISON



MILWAUKEE



WAUSAU

NEGOTIATED VS HARD BID:

80% / 20%

PROJECT OF ALL SIZES FROM:

\$1K-\$200M

VOTED "MOST TRUSTED BUILDER" BY PEERS
(In Business)

About **FINDORFF**

\$2.5 MILLION

IN FOCUS ON ENERGY INCENTIVES

\$1 BILLION

IN LEED CERTIFIED BUILDINGS



WISCONSIN'S TOP
**GREEN
CONTRACTOR**

THE PAST TWO YEARS
Engineering News-Record Magazine



Education

BS in Civil and Environmental
Engineering (2010)

MA in Social Innovation and
Sustainability Leadership (2019)



Career at JHF

Intern (2006)

Project Engineer (2011)

Project Manager (2014)

Sustainability Lead (2018)

ABOUT ME



DEFINING SUSTAINABILITY



PROJECT SUSTAINABILITY DRIVERS

Energy Efficiency

- » Building Siting and Orientation
- » Building Envelope
- » Heating/Cooling Systems & Controls
- » LED Lighting & Controls
- » On-Demand Water Heating

Renewable Energy

- » On-site Rooftop Solar Panels
- » "Solar-Ready" Rooftops
- » Off-site Renewable Energy

Water Efficiency & Reuse

- » Low Flow Plumbing Fixtures
- » Greywater Systems
- » Rainwater Harvesting
- » Irrigation

Waste Management

- » Construction Waste Reduction
- » Material Salvage & Reuse
- » Construction Recycling
- » Operational Waste Planning

Site and Land Stewardship

- » Sensitive Land Protection
- » Low Impact Landscaping
- » Composting and Gardening
- » Access to Nature
- » Stormwater Management
- » Green Roofs
- » Protect and Restore Habitat

Transportation

- » Electric Vehicle Charging
- » Bicycle Infrastructure
- » Carpooling/Ridesharing
- » Access to Public Transport

Material Selection

- » Low Embodied Carbon
- » Healthy Materials
- » Material Transparency
- » Local Materials
- » Recycled Content
- » Social Justice Transparency

Occupant Health & Wellbeing

- » Outdoor and Indoor Air Quality
- » Water Access and Quality
- » Thermal Comfort
- » Active Design
- » Access to Healthy Foods
- » Natural Light
- » Programmed Wellness Spaces

Building as a Teaching Tool

- » Programming
- » Graphics
- » Interactive Data
- » Building Elements on Display

Community

- » Universal Design
- » Shared Spaces
- » Workforce
- » Youth Apprenticeship

.....AND MORE!!

PROJECT OPPORTUNITIES

Just 1.0

Just.

Organization Name: Super Paint Corp.
Organization Type: LLC
Headquarters: Amherst, NJ
Satellite Facilities: Portland OR, Houston TX, Montreal CAN
Number of Employees: 3,220

Social Justice and Equity Indicators:

Diversity

- Non-Discrimination
- Gender Diversity
- Ethnic Diversity

Worker Benefit

- Worker Happiness
- Employee Health Care
- Continuing Education

Equity

- Full Time Employment
- Pay-Scale Equity
- Union Friendly
- Living Wage
- Gender Pay Equity
- Family Friendly

Local Benefit

- Local Control
- Local Sourcing

Stewardship

- Responsible Investing
- Community Volunteering
- Positive Products
- Charitable Giving
- Animal Welfare

Safety

- Occupational Safety
- Hazardous Chemicals

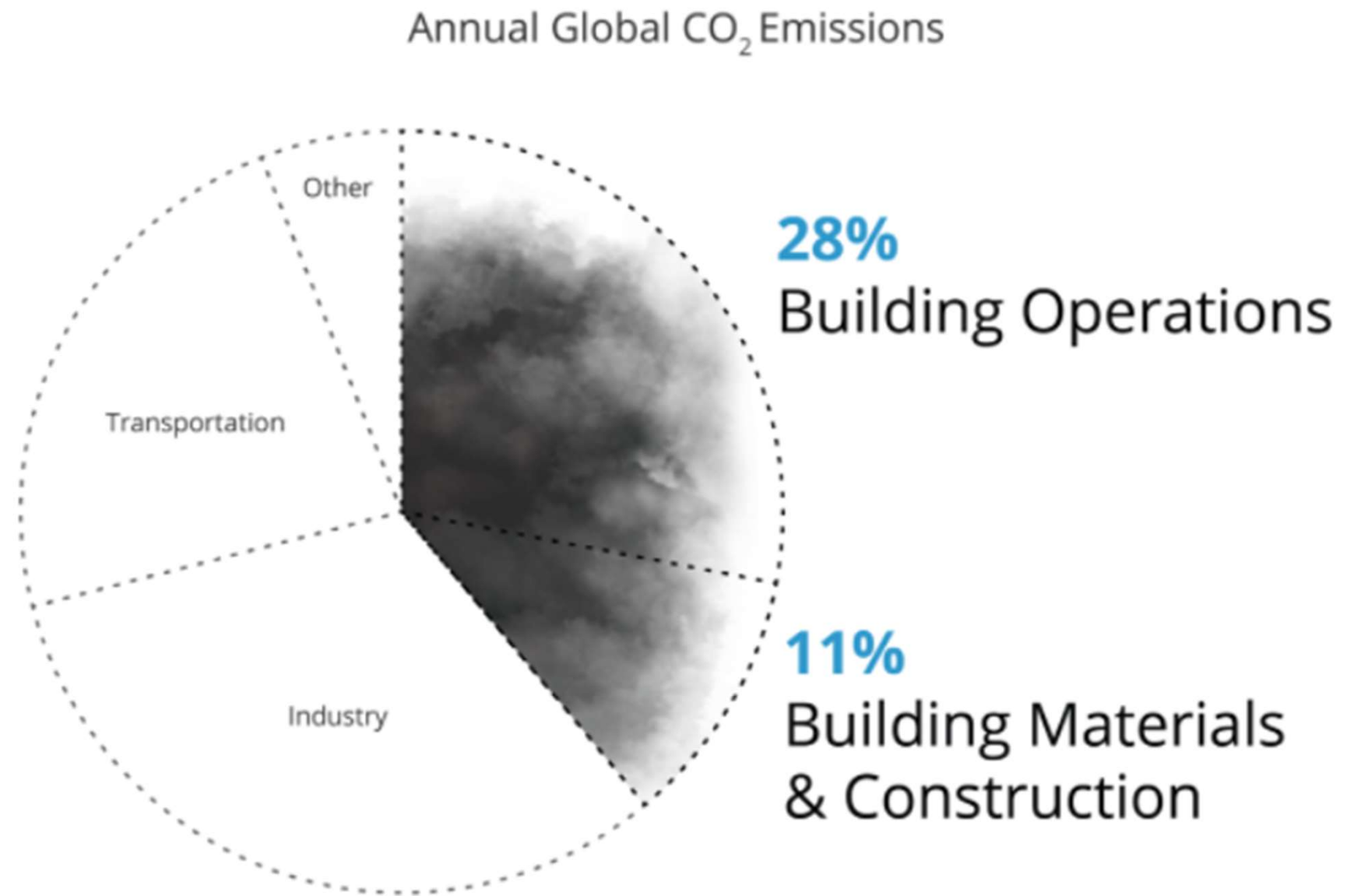
THE SOCIAL JUSTICE LABEL
INTERNATIONAL LIVING FUTURE INSTITUTE™





INDUSTRY FOCUS

Buildings generate nearly 40% of annual CO₂ emissions.



WHY FOCUS ON THIS?



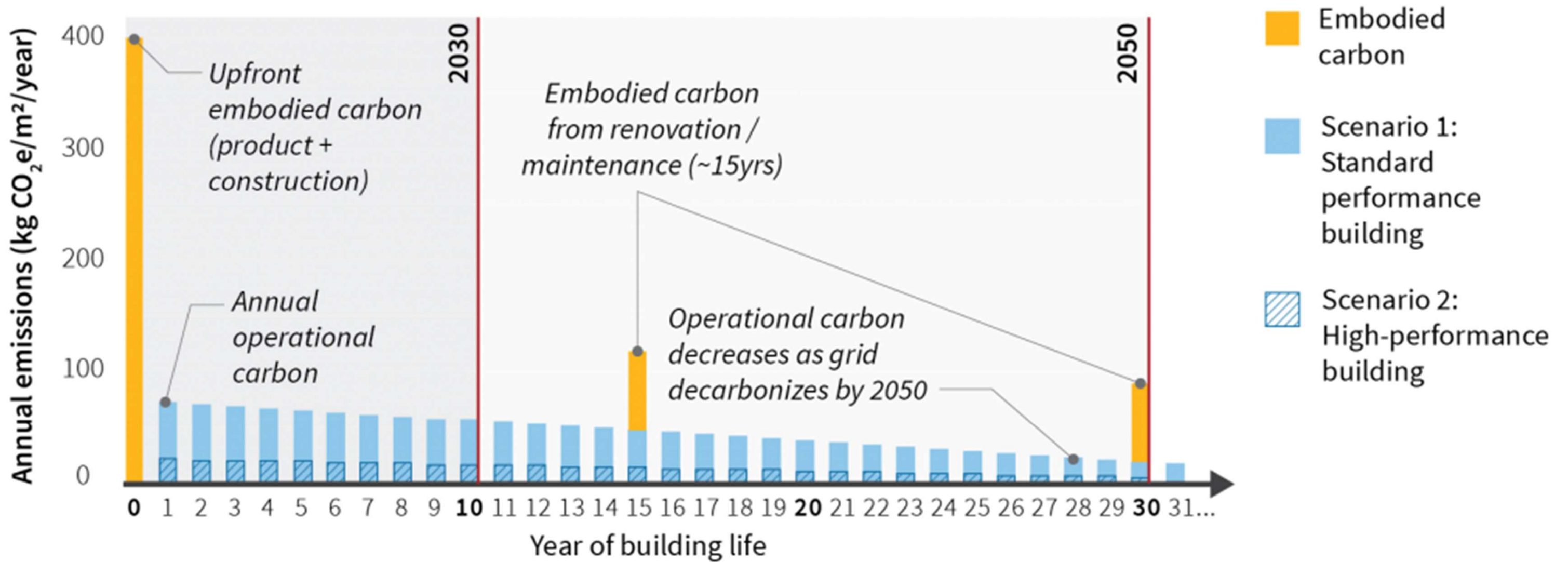
Embodied Carbon

The emissions from manufacturing, transportation, and installation of building materials.

Operational Carbon

The emissions from a building's energy consumption.

TYPES OF CARBON IN BUILDINGS

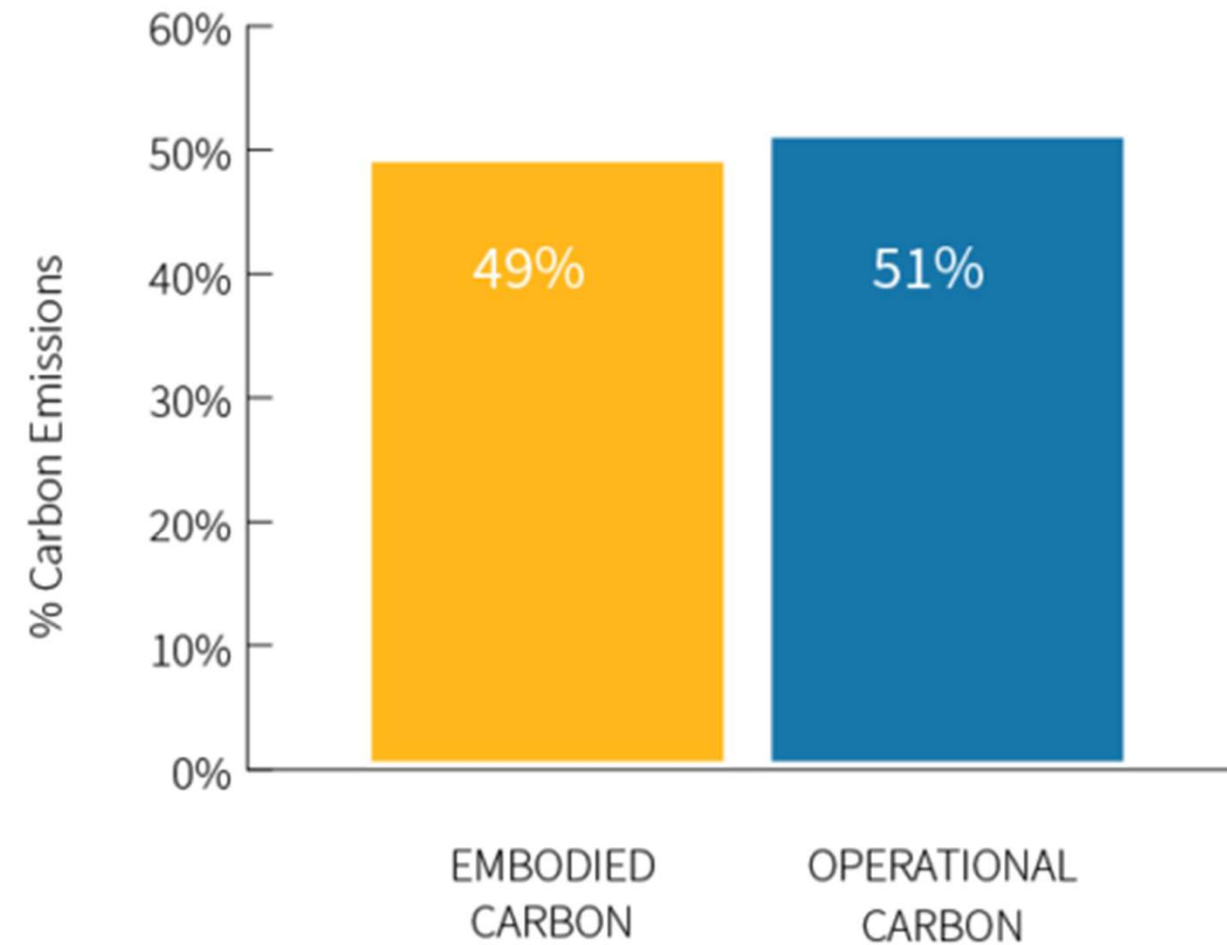


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TYPES OF CARBON IN BUILDINGS

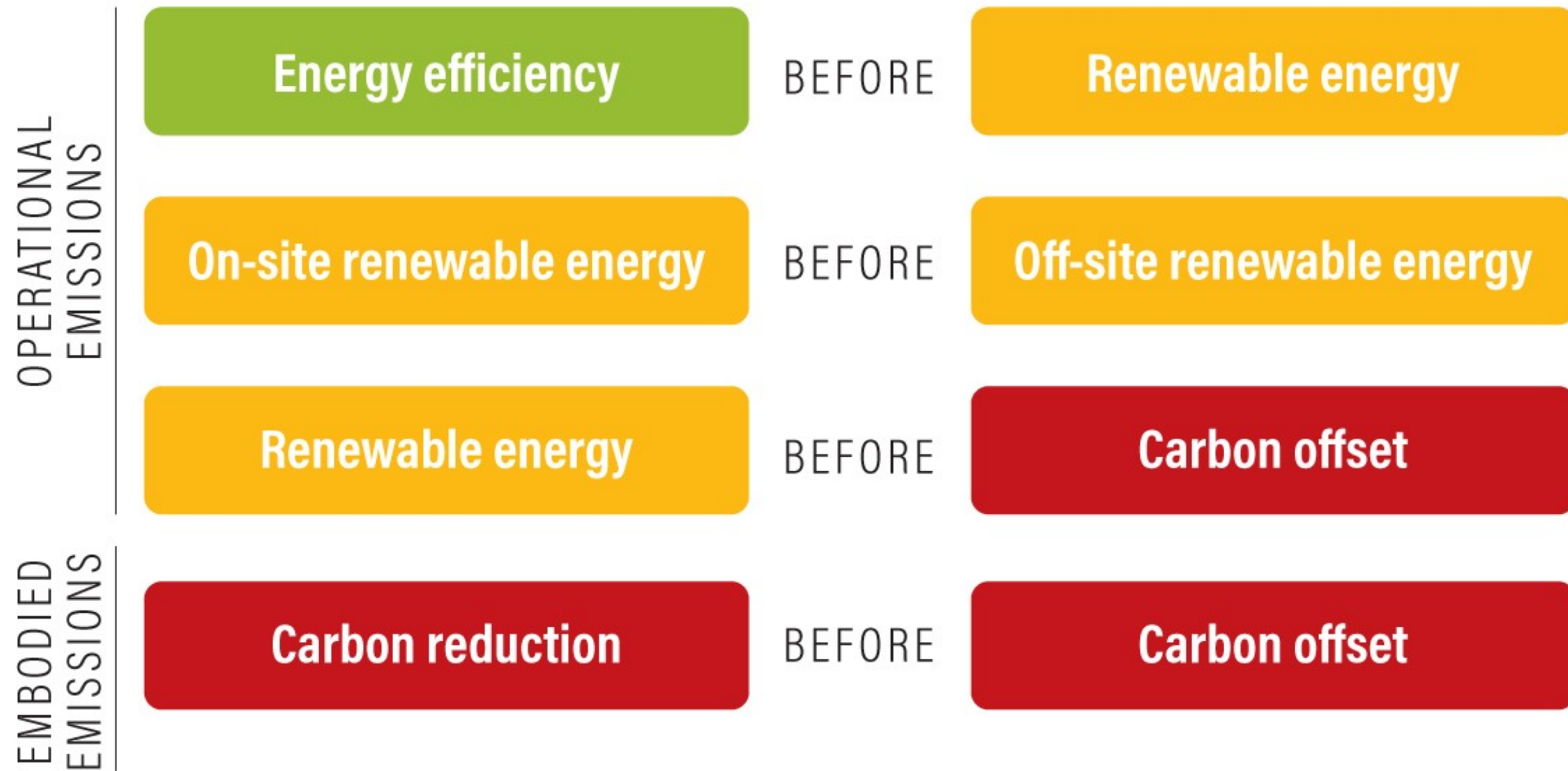
Total Carbon Emissions of Global New Construction from 2020-2050

Business as Usual Projection



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UN Environment Global Status Report 2017; EIA International Energy Outlook 2017

TYPES OF CARBON IN BUILDINGS



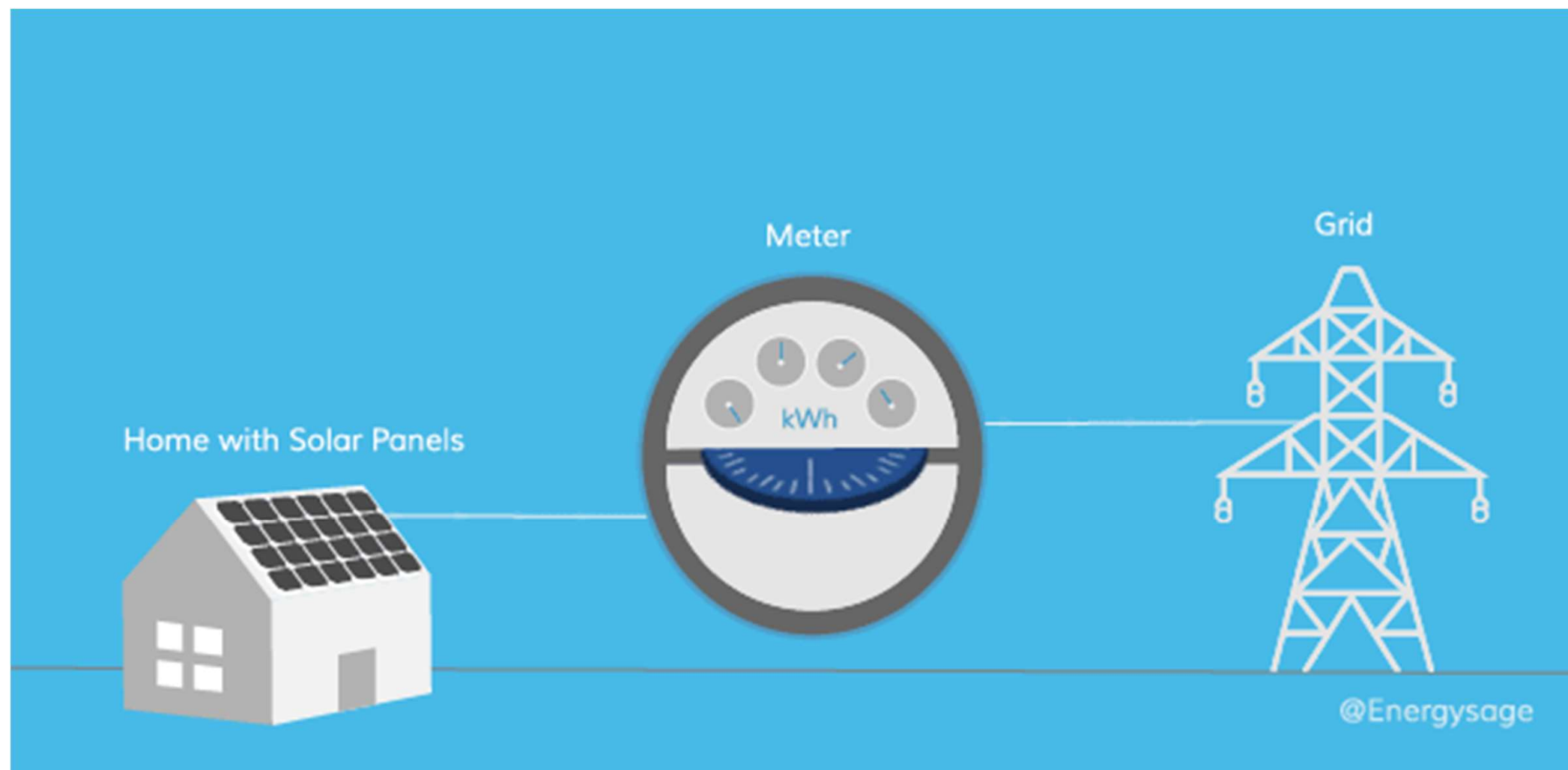
COMPREHENSIVE CARBON SOLUTIONS



**WHAT IS
DRIVING THIS
FOCUS?**

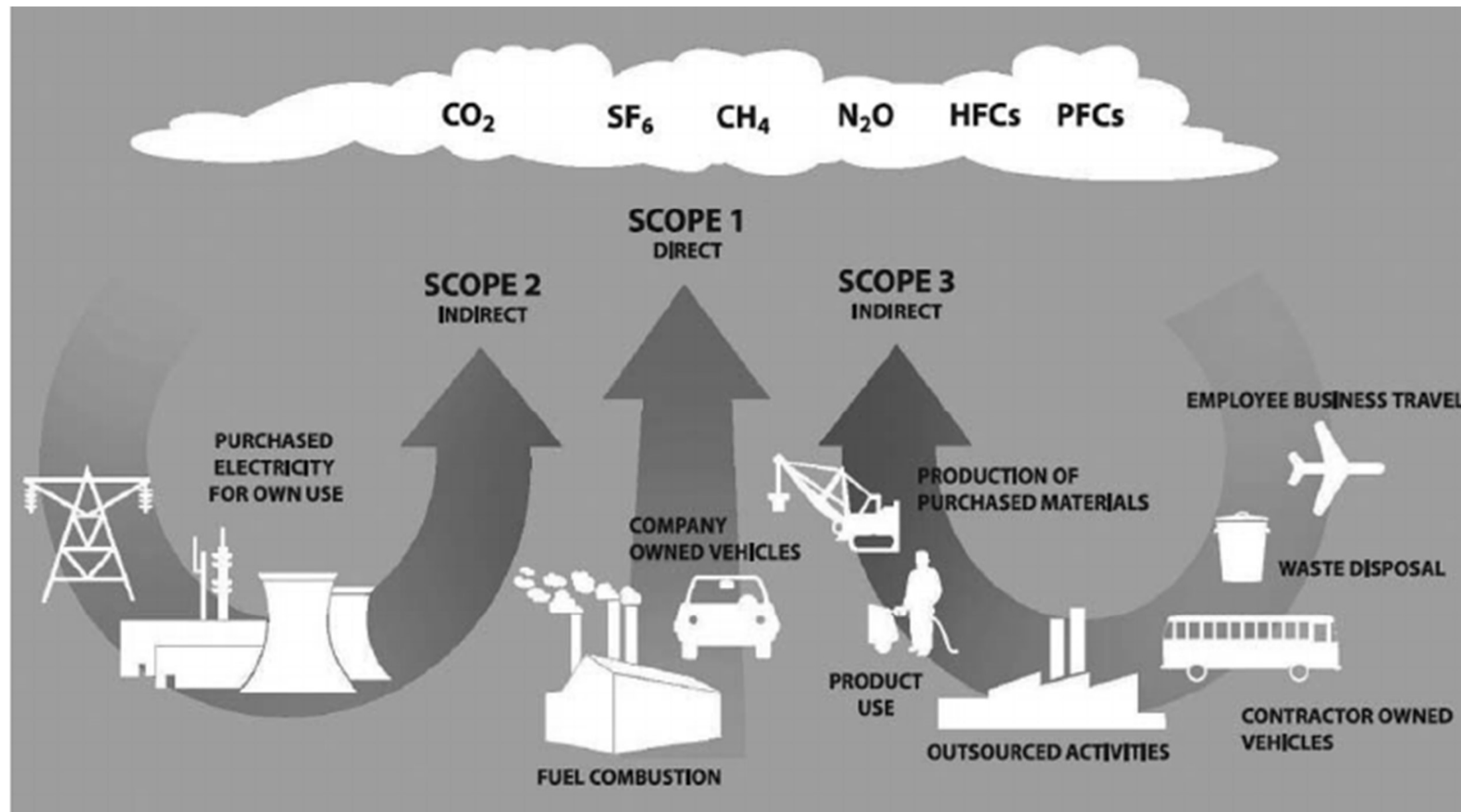
Using **COMMON LANGUAGE**

Net Zero Energy: One hundred percent of the building's energy needs on a net annual basis must be supplied by on-site renewable energy.



Using **COMMON LANGUAGE**

Carbon Neutral: Carbon neutrality is a state of net-zero carbon dioxide emissions. This is achieved by reducing emissions and offsetting what emissions cannot be eliminated.





*"Through the **Better Climate Challenge**, organizations can partner with DOE to reduce portfolio-wide GHG emissions (scope 1 & 2) by at least 50% within 10 years."*
- Signees, UW Health & City of Madison



"I am proud to say Eurofins has committed to being carbon neutral by 2025. This aggressive target will be met through changes in our laboratories, increasing green infrastructure on campus and in our community, and offsetting through the purchase of carbon credits where we cannot avoid emissions."
- Neal Salerno, President



Sun Prairie Area
School District
Futures depend on us...every child, every day.



OREGON SCHOOL DISTRICT



Middleton-Cross Plains
Area School District
inclusive. innovative. inspiring.

"Developing an energy plan with 15 near-term opportunities for energy efficiency, demand response, or distributed energy resources for each school district"
- PSC Energy Innovation Grant Application

CARBON REDUCTION TARGETS

FACT SHEET

Enhancement and Standardization of Climate-Related Disclosures



The Securities and Exchange Commission proposed rule amendments that would require a domestic or foreign registrant to include certain climate-related information in its registration statements and periodic reports, such as on Form 10-K, including:

- Climate-related risks and their actual or likely material impacts on the registrant's business, strategy, and outlook;
- The registrant's governance of climate-related risks and relevant risk management processes;
- The registrant's greenhouse gas ("GHG") emissions, which, for accelerated and large accelerated filers and with respect to certain emissions, would be subject to assurance;
- Certain climate-related financial statement metrics and related disclosures in a note to its audited financial statements; and
- Information about climate-related targets and goals, and transition plan, if any.

The proposed disclosures are similar to those that many companies already provide based on broadly accepted disclosure frameworks, such as the Task Force on Climate-Related Financial Disclosures and the Greenhouse Gas Protocol.

Background

The Commission began efforts to provide investors with material information about environmental risks facing public companies in the 1970s and most recently provided related [guidance in 2010](#). Many investors are concerned about the potential impacts of climate-related risks to individual businesses. As a result, investors are seeking more information about the effects of climate-related risks on a company's business to inform their investment decision-making. Investors also have expressed a need for more consistent, comparable, and reliable information about how a registrant has addressed climate-related risks when conducting its operations and developing its business strategy and financial plan. The proposed rules are intended to enhance and standardize climate-related disclosures to address these investor needs. Many issuers currently seek to provide this information to meet investor demand, but current disclosure practices are fragmented and inconsistent. The proposed rules would help issuers more efficiently and effectively disclose these risks, which would benefit both investors and issuers.

Content of the Proposed Disclosures

The proposed rules would require a registrant to disclose information about:

- The oversight and governance of climate-related risks by the registrant's board and management.

Proposed rule (as written) would require publicly traded companies to report the following annually:

- **Climate-related risks** and their actual or likely material impacts on the registrant's business, strategy, and outlook;
- The registrant's **governance** of climate-related risks and relevant risk management processes;
- The registrant's **greenhouse gas ("GHG") emissions**, which, for accelerated and large accelerated filers and with respect to certain emissions, would be subject to assurance;
- Certain climate-related **financial statement metrics** and related disclosures in a note to its audited financial statements; and
- Information about climate-related **targets and goals**, and **transition plan**, if any.

SEC DISCLOSURE REQUIREMENTS

Large or Small, Public or Private: We Are the Only Universal Sustainability Ratings Provider

EcoVadis helps you manage your network both upstream and downstream, either by sharing your performance with your stakeholders or monitoring the performance of your own upstream value chain.



100,000+
Companies



175+
Countries



200+
Industries

Tens of thousands of companies partner with EcoVadis to collaborate on sustainability with a common platform, universal scorecard, benchmarks and performance improvement tools.



REPORTING & TRANSPARENCY



FINANCIAL TOOLS

Solar EXAMPLE

Case Study #1: Rooftop solar included in the project budget and installed within the project schedule

Applicable When: Upfront funds are available within the project budget

Grant/Incentives: Focus on Energy Solar Incentives, Solar on Schools Grant



Financial EVALUATION

Step 1. Many sustainability solutions require an upfront investment. Determine scope and first cost.

Performance Summary

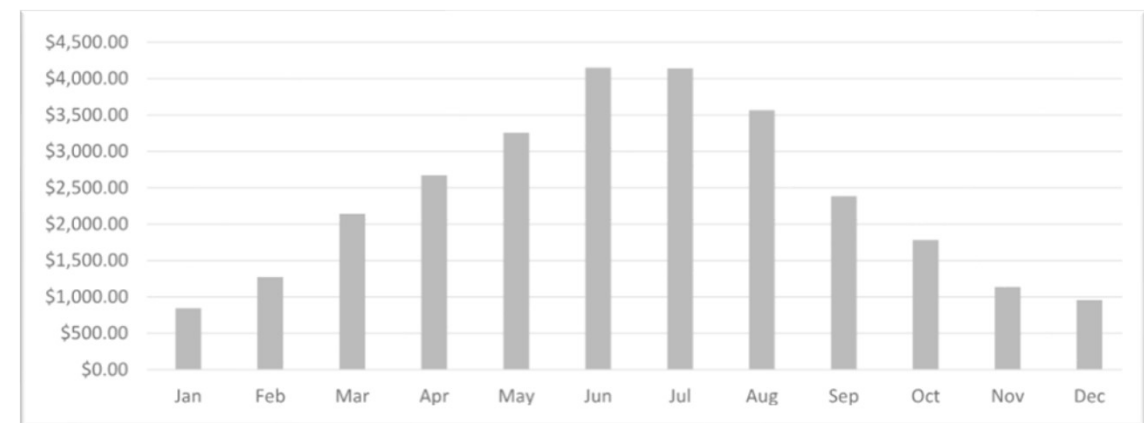
Solar Electric (PV) System: 220.78 kW DC producing 286,092 kWh/Year.

Purchase Price & Net Cost

Contract Price: \$360,000



Step 2. Energy or water savings projects yield year-after-year cost savings. Determine projected annual savings and return on investment.



Step 4. If upfront project funds are not available, evaluate financing options that make energy efficiency and renewable energy project cash flow positive.

Annual utility bill savings



Annual cost of projects



Step 3. There may be opportunities to lower project first cost. Determine metrics for evaluation and identify grants, incentives, or other credits to lower first cost to make project financially viable within the project budget.

| | |
|----------------------------------|-------------------|
| Solar PV Turnkey Cost | \$ 249,406 |
| WI FOE Business Incentive | (\$20,496) |
| Net Solar PV Turnkey Cost | \$ 228,910 |

Financial RESOURCES



focus on energy[®]

Partnering with Wisconsin utilities



The Inflation Reduction Act

GRANTS & INCENTIVES

Goal: Offset First Cost Impact



Legacy Solar Co-op



FINANCING

Goal: Reduce Upfront Cost, Cash-Flow Positive Early

Financial EVALUATION

Exhibit 1 Top categories for reducing embodied carbon

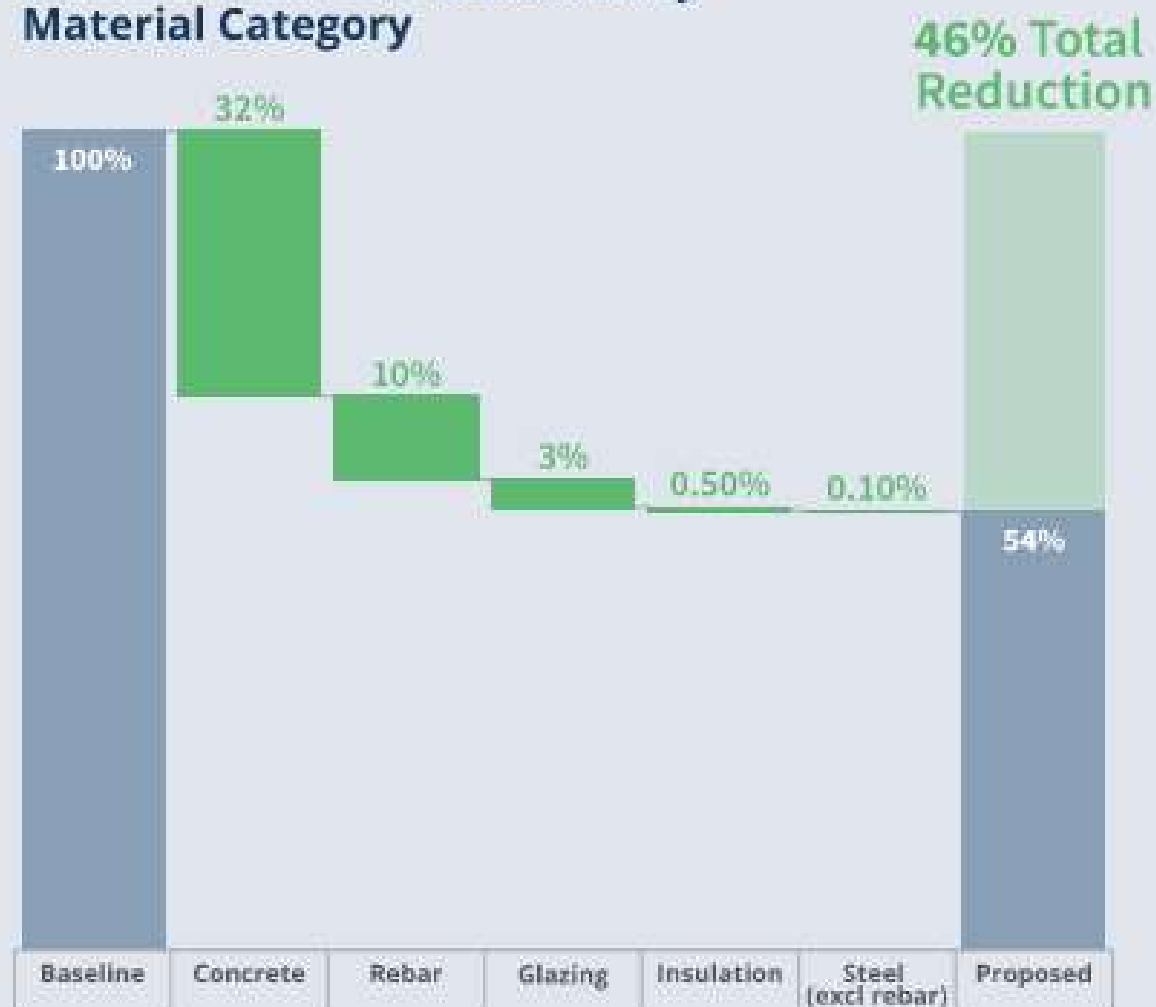


Financial EVALUATION

Case Study 1: Mid-Rise Concrete and Steel Construction

In a five-story, 200,000 ft², mixed-use office building with a **steel-reinforced concrete slab and steel and concrete above-grade** construction, we identified a potential **46% reduction** in up-front embodied carbon by focusing on a wide array of building components. The cost premium for this reduction in embodied carbon is **less than 0.5%** of the overall project cost.

Embodied Carbon Reduction by Material Category



Financial EVALUATION

Up-front embodied carbon reduction from baseline

46%

Cost premium of low-embodied-carbon measures

< 0.5%
Of Total Budget

CO₂e reduced (metric tons)

2,228

Building components in scope

Structural systems
Glazing
Roofing
Interior wall materials (unfinished)
Insulation

Top no-cost measures *(measures that do not add to total project cost)*

Specify lower-embodied-carbon products:

- Ready-mix concrete: optimize ready-mix supplier award selection, procure lower cement mix designs, and allow for 56-day strength obtainment
- Metal decking
- Roofing

One-for-one material substitution:

- Gypsum sheathing
- Insulation materials: procure lower-embodied-carbon insulation products such as polyiso or mineral wool batt in lieu of materials with higher GWPs, such as XPS

Top low-cost measures *(measures that have a small cost premium associated with lower-embodied-carbon alternatives)*

Specify lower-embodied-carbon products:

- Glazing: procure lower-embodied-carbon glazing products
- Structural steel and rebar: strategically procure steel from mills that incorporate high recycled content steel, electric arc furnace technology, and clean electrical supply

Replicating the **CASE STUDY**






A Partnership in Sustainable Construction



Total Project: GWP Reduction versus NRMCA Great Lakes Regional Average 38.3%

Projected savings in Climate Change emissions for the oLiv project

| | |
|--|--|
|  | Savings equivalent to the combustion of 360,768 gallons of gasoline |
|  | Savings equivalent to driving a standard passenger car 7,958,308 miles |
|  | Savings equivalent to the annual CO2 sequestration from 3,794 acres of US forest |

Equivalents calculated using the EPA Greenhouse Gas Equivalencies Calculator
<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

Takeaways

- » Engage in Sustainability Conversations – They Matter
- » Understand the Issues & How You Can Act
- » Solutions Exist, Need to Scale
- » Use the “Yes, and” Approach – We need Individual and Collective Actions at the Same Time
- » It’s OK to Start Small
- » Collaborate and Build on the Work Already Happening



THANK YOU

Feel Free to Reach Out:

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CASE STUDY

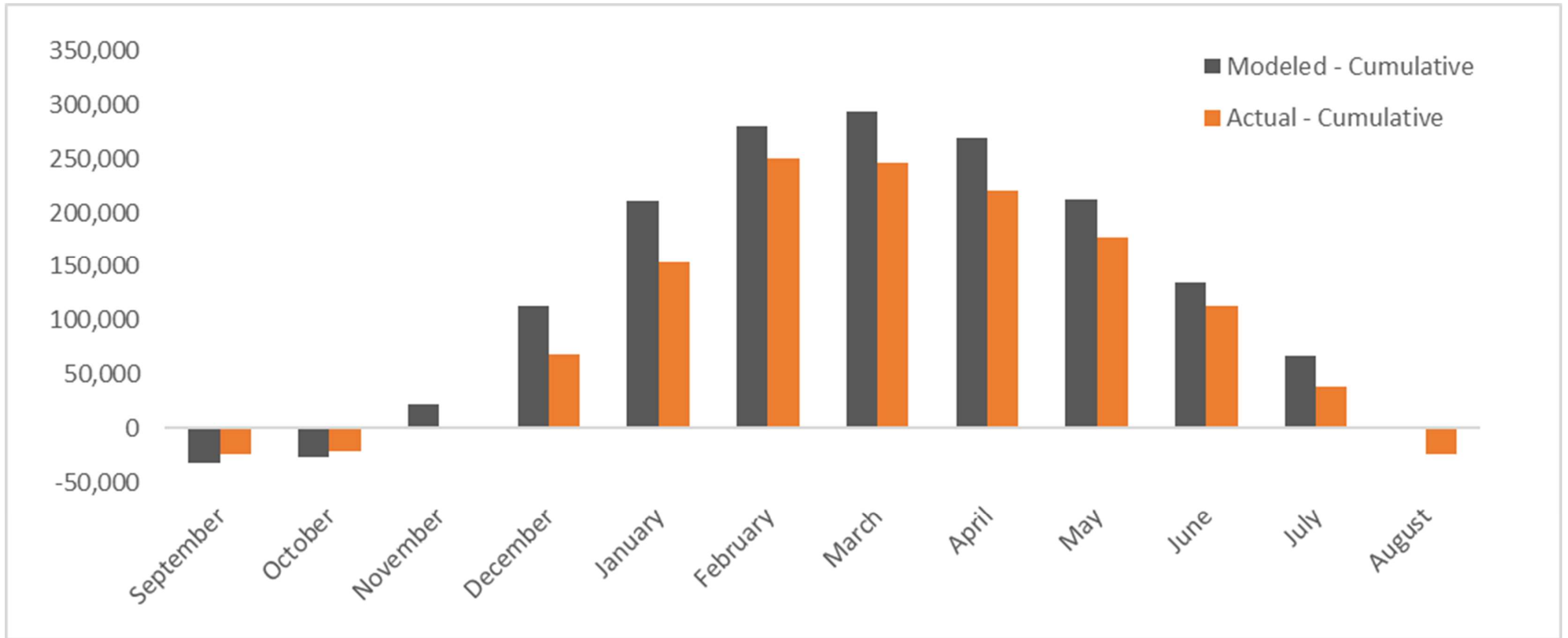


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VERIFIED NET ZERO CASE STUDY



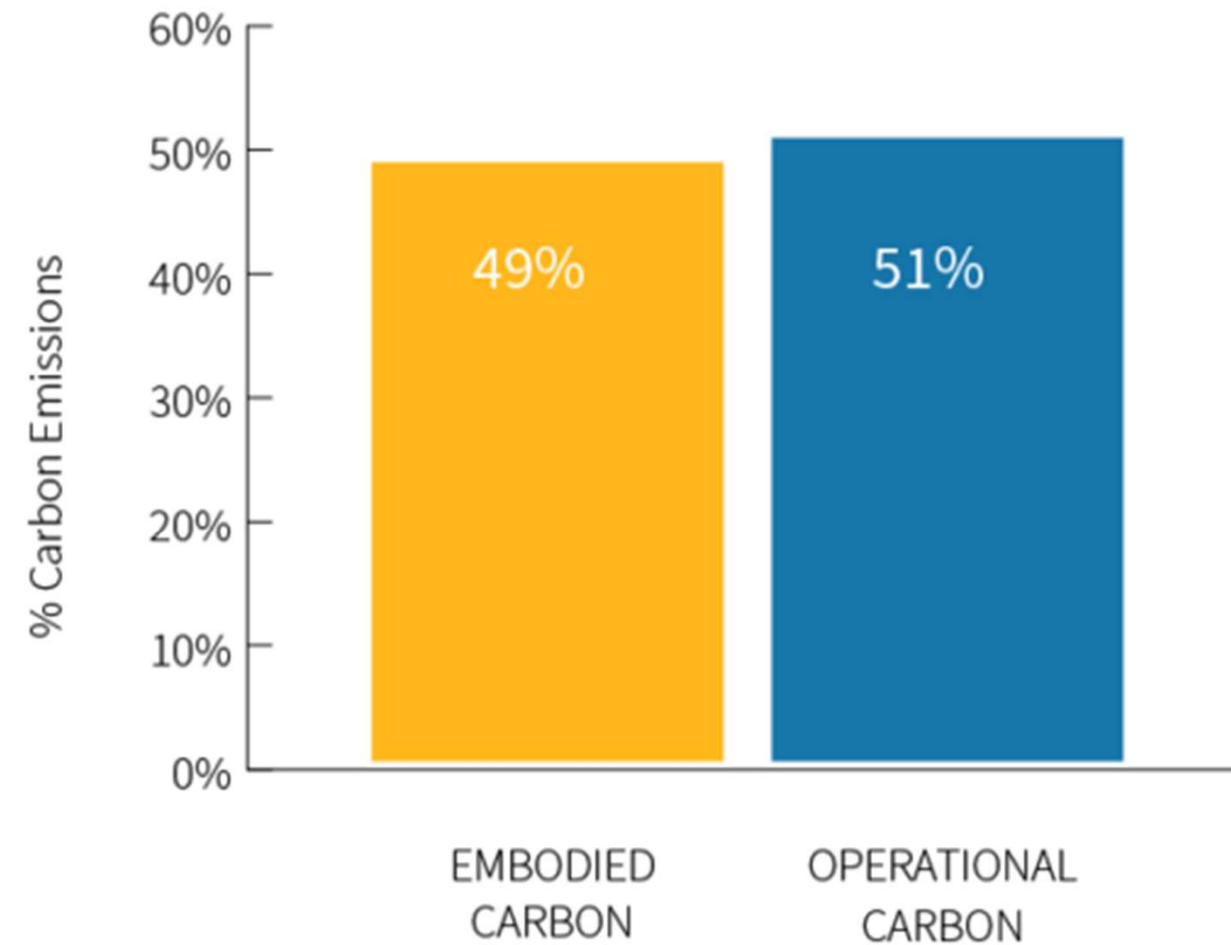
VERIFIED NET ZERO CASE STUDY



TRACKING NET ZERO ENERGY

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TYPES OF CARBON IN BUILDINGS



Life + Wellness



Light + Learning



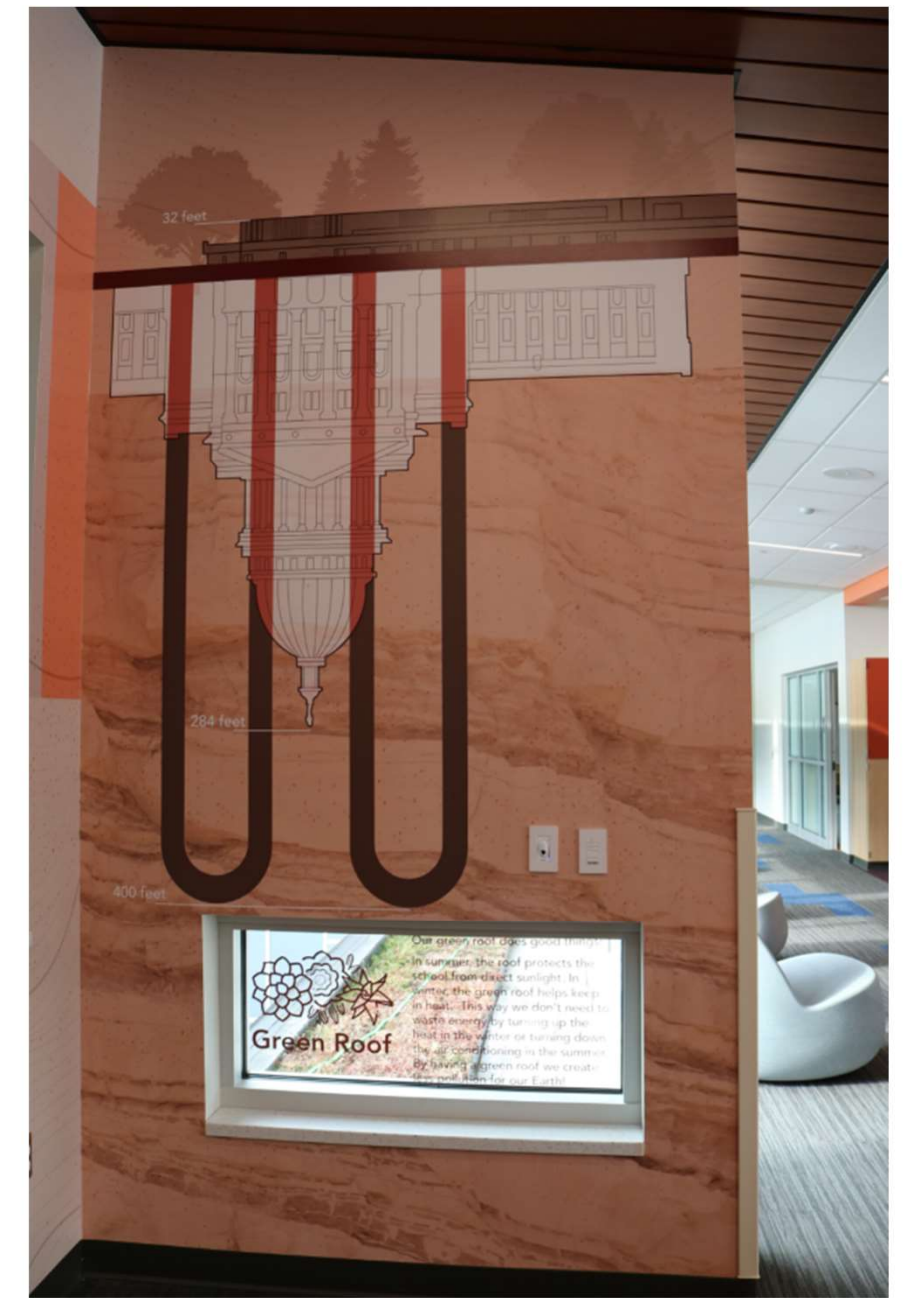
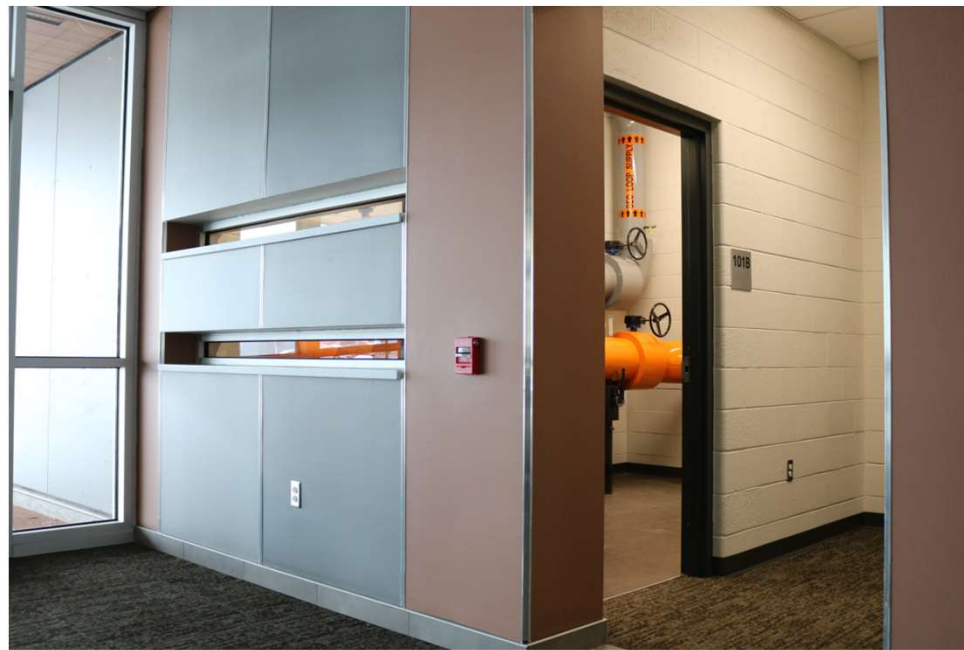
Water



Wind



Thermal



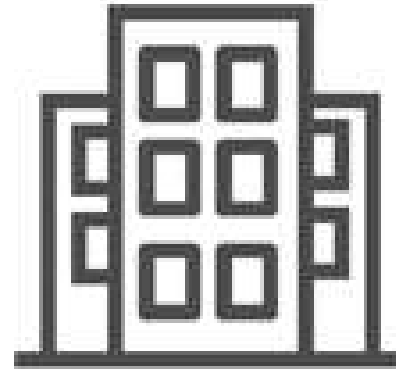
THE BUILDING AS A TEACHING TOOL



HOW TO PROCEED

NEXT STEPS

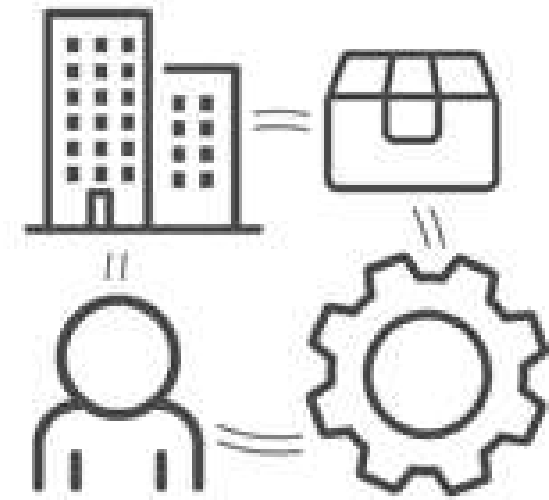
- » Benchmark
- » Develop Action Plan
- » Implement Reductions
- » Disclose & Report



SCOPE 1
Direct emissions
Company-owned buildings
and equipment



SCOPE 2
Indirect emissions
Company-used electricity
and energy generation



SCOPE 3
Other indirect emissions
Supply chain, employee
travel and embodied carbon

INTERNAL OPERATIONS