RDH BUILDING SCIENCE

rdh × climate 2030

Climate Transition Plan — Climate Report 2024 Update

Table of Contents

RDH x CLIMATE 2030 1

METRICS 2

CASE STUDIES 3

2024 ROADMAP 4

rdh × climate 2030

The threats posed by the climate crisis extend far beyond the AEC industry and community.

Central to averting climate disaster is the need for immediate and deep emissions reductions across all sectors. **To limit global warming to 1.5C, greenhouse gas emissions must peak by 2025 and be reduced by 43% by 2030.** [2]

The built environment is responsible for 42% of annual global greenhouse gas emissions.[1]

We have solutions to substantially reduce greenhouse gas emissions associated with new and existing buildings. **We are committed to delivering these solutions for our clients while operating with a low carbon footprint.**

#NOTNEUTRALONNEUTRALITY

[1] **Architecture 2030** https://www.architecture2030.org/why-the-built-environment/

[2] **United Nations Climate Change:** The Paris Agreement https://unfccc.int/process-and-meetings/the-paris-agreement#:~:text=To%20limit%20global%20warming%20to%201.5%C2%B0C%2C%20greenhouse%20gas,and%20decline%20of%20by%202030.

rdh × climate 2030

RDH's building professionals are working together with our clients and industry colleagues to pursue scalable, transferable, and responsible approaches to combat climate change in the built environment.

Recognizing the crucial role of climate advocacy in corporate strategies, particularly in businesses responsible for developing, rehabilitating, and repairing the built environment, we are launching RDH x CLIMATE 2030.

We have solutions to substantially reduce greenhouse gas emissions associated with new and existing buildings. We are committed to delivering these solutions for our clients while operating with a low carbon footprint.

Our Vision

RDH is a beacon for building science leadership, **focused on delivering scalable climate-resilient solutions** for clients and future generations.

Making Buildings Better™

You can’t improve what you can’t measure.

2023 – 2024 Climate Report Update

We’ve set ambitious Climate Action goals for 2030 that break down our targets, measure against sustainability benchmarks that reduce cost, energy, and waste, and optimize our journey to 2030 Net Zero emissions.

Each year, RDH will publish a summary of our planning and analysis to date.

This is our very first Climate Report Update.

Climate Workshops

We held workshops in each office to engage our teams in developing strategies and tactics for climate action.

Climate Services + Discipline Leads

Our Discipline Leaders have embedded climate-related strategies and tactics into their strategic plans.

New Employee Onboarding

We provide climate change training as part of onboarding for all new employees.

GHG Inventory Audit

We’ve updated our greenhouse gas emissions inventory for Fiscal Year 2022, developed an emissions reduction plan, and received Climate Smart Business Certification.

Hybrid Work

We’ve launched a hybrid work framework that allows our team to work from home at times, which reduces our emissions associated with commuting and travel.

2023 Progress

2022 – Regional climate engagement workshops

Embed climate change service strategy into Discipline Lead plans

Update our GHG inventory with third party review and verification – FY2022 inventory complete and Climate Smart Certification achieved

Goal set: Net Zero Operations by 2030

Produce an annual sustainability report to report on progress

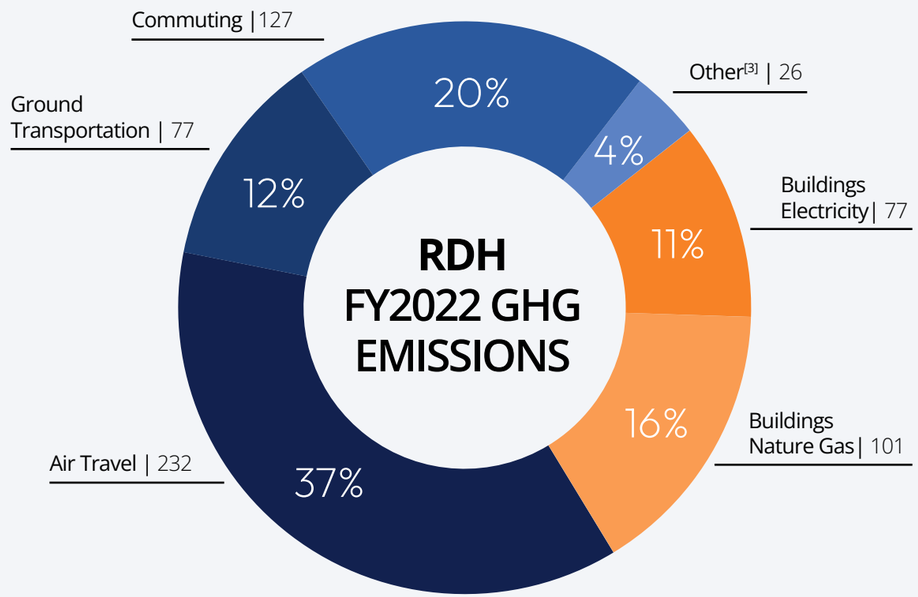
Provide climate training as part of onboarding for all new employees

Launch hybrid work framework

Metrics

We have been measuring our Scope 1, 2, and 3 greenhouse gas emissions through the Climate Smart program (now BMO Climate Smart) since 2010.

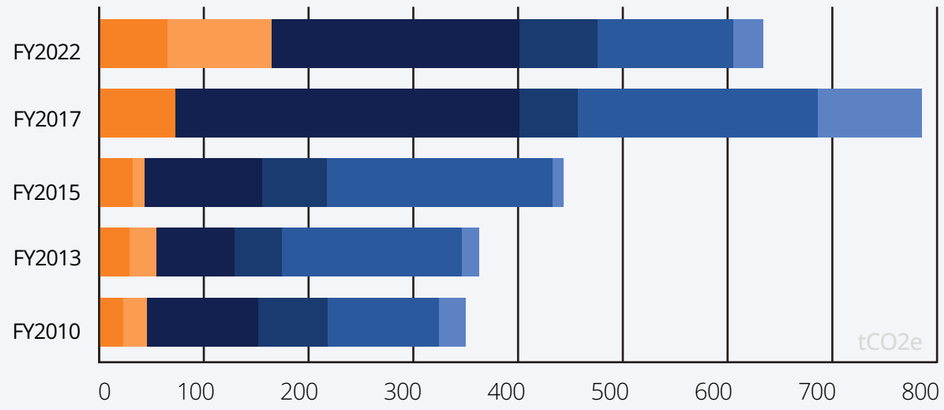
Our most recent inventory shows our lowest emissions per employee yet, indicating that through our growth we've been successful at managing and reducing our emissions.



The graph below shows where we emit greenhouse gas emissions. Travel comprises over two thirds of our emissions, with air travel the biggest proportion (37% of total emissions), followed by employee commuting (20%) and ground transportation for business travel (12%).

[1] Other includes office waste, paper, accommodations during business travel, and transporting goods.

RDH EMISSION OVER TIME



The graph below shows our emissions by category since we started tracking in 2010. The opening of our eastern offices in 2016 increased travel significantly as evidenced by the increase in our 2017 emissions. Since then, we've managed to reduce our total emissions through less travel and more online collaboration.

West Tisbury School Feasibility Study

Location:	**West Tisbury, MA**
Project Completion:	**2022**
Services Provided:	**Zero Carbon-Ready Retrofit Study, Energy Performance Consulting**
Client:	**Up-Island Regional School District**
Team Members:	**Andrew Steingiser**

West Tisbury High School near Boston, providing Pre K-5 and grade 6-8 education, was last renovated in the mid-1990s. The facility is due for a $1 - $2M overhaul that will require approval to draw considerable funds from voters and complete the full rehabilitation.

RDH partnered with key stakeholders from the school, school district, and community's Environmentally Friendly School Building Task Force to deliver a comprehensive Zero-Carbon ready feasibility study. The findings and analysis unveil current significant energy use through heating, cooling, and ventilation as well as from other outdated building systems. The pre-bid estimates offer a path forward for decision-making that prioritizes a range of solutions (low to high touch) that make the school energy-tight, efficient, and nonpolluting.

RDH performed field surveys of existing mechanical systems and building enclosure systems, with input from maintenance personnel and other stakeholders familiar with the operation of the school.

RDH also performed field testing, including thermal imaging based on ASTM C1060 and ASTM E1186 as well as whole-building airtightness testing.

RDH reviewed the existing energy use of the building, developed packages of retrofit options based on energy modeling, and recommended the package with the best results.

RDH's work also included the evaluation of renewable system options, including photovoltaic panel options, to offset the remaining reduced energy use of the building, as well as an evaluation of potentially available incentive programs for the project.

RDH provided a sequenced plan for how work may be implemented and prepared a cost estimate as part of the final report, allowing project stakeholders to evaluate how to proceed with the next steps of the design phase.

RDH leveraged the firm's integrated expertise in Building Enclosure, including field experience, thermal analysis and system detailing, Energy Analysis and Energy modeling, including knowledge of appropriate mechanical systems, and experience orchestrating holistic retrofits of existing buildings.

RDH was able to provide a spectrum of retrofit options for the school and task force to consider. Providing accurate information to enable informed decisionmaking among the stakeholders as they balance the needs of West Tisbury against the building needs of the Vineyard's six schools was central to our success as project partners.

2024 Goal

Carbon

Offset emissions from RDH-owned vehicles and DH-leased offices

Data Management

Develop a streamlined process for measuring and reporting GHG emissions, including PowerBI dashboard

Travel

New guidelines

– Embed sustainability-related roles and responsibilities into internal job descriptions and key performance indicators

– Re-launch corporate sustainability committees for regional action

– Develop local/regional plans to align services with climate change lens (tactical)

RDH BUILDING SCIENCE