



Oak Park and River Forest High School Sustainability Plan

Approved by the Board of Education July 14, 2022

This plan includes the goals from the [Sustainability Policy](#) and strategies and actions to implement the policy.

Key principles and commitments of the D200 Sustainability Policy include:

- Students, in addition to technical experts and D200 staff, will be involved formally on the D200 Sustainability Committee and will be involved in developing and revising plan strategies and reviewing the annual greenhouse gas (GHG) emissions and sustainability metrics report.
- Ongoing education of staff and students and the broader D200 community will be a regular component of the D200 Sustainability Policy and Plan, including staff training and student in-class and field and project-based learning about the climate crisis, equitable sustainability, and other sustainability topics.

Goal 1: Sustainability Scorecard: Develop a scorecard with all sustainability metrics to be used in annual reporting on the execution of the sustainability plan by August 2022.

- A. Strategy 1.1:** Establish the performance benchmark for each major area of interest.
- a. **Action 1.1a:** Establish the energy performance benchmark using 2012 data. Operations will use [ENERGY STAR Portfolio Manager](#) to compile and annually update usage and percent green energy from prior bills or an energy supplier.

2012 benchmark Usage:

Electricity -Grid Purchase(kBtu)	21,144,471
Natural Gas (kBtu)	<u>35,422,011</u>
Total Energy (kBtu)	56,566,482

- B. Strategy 1.2:** Develop baseline (2022) data for resource areas outside of energy use.
- a. **Action 1.2a** Operations and students who volunteer to participate in the district's Sustainability Plan will list out and prioritize (based on expected impact) all resource areas. At a minimum, this will include:
 - i. Transportation
 - ii. Waste
 - iii. Food
 - iv. Water
 - b. **Action 1.2b** Develop benchmark data and methods used to gather data for each resource area.
 - i. Operations will pull existing Planet Green and ENERGY STAR reports.
- C. Strategy 1.3:** Develop a scorecard including annual values as well as actions.
- a. **Action 1.3a:** Populate the scorecard with baselines and targets identified in previous actions. Develop a matrix supporting the scorecard for use by the committee and in reporting to the Board.
 - b. **Action 1.3b:** Build a public-facing web portal to report all data in a user-friendly format.

- i. Engage human-centered designers in the development of the portal.
- ii. Solicit public input.

D. **Strategy 1.4:** Develop a building performance analysis model (“digital twin”) of the school to allow the Sustainability Committee to test performance improvement opportunities.

- a. **Action 1.4a:** Equipment Catalog: Operations will gather a master list of all energy/resource consuming equipment, its age, and condition to track each piece of equipment now and in the future, and allow for planning for replacement. For each piece of equipment, Operations will also track the following:
 - i. Fuel/power source
 - ii. Efficiency (energy, water, other resources)
 - iii. Current acceptable retrofit option, including electrification for gas consuming equipment
- b. **Action 1.4b:** Digital Twin: Build a virtual model of the building and campus that mimics the current operation, calibrate that model with the benchmark data, and test the model to ensure it can accurately predict performance improvements. The exercise of creating the model will include:
 - i. Open source software to allow for use throughout the timeline identified in the policy
 - ii. Student input and learning opportunities at every juncture
 - iii. Recalibration on an annual basis

E. **Strategy 1.5:** Engage D200 Sustainability Committee in periodic reviews (quarterly meetings) to discuss report card results and subsequent strategies moving forward.

- a. **Action 1.5a:** By April 2023, establish a tracking and reporting methodology consistent with accepted carbon accounting protocols (e.g., science-based targets).
- b. **Action 1.5b:** By April 2023, establish a cost of carbon so that the financial feasibility of projects can be more easily compared and assessed. The reporting should include both the market value in terms of the consequences of carbon emissions and the cost of removing carbon from the atmosphere. At a minimum include:
 - i. The social cost of carbon as established by a recognized authority. (For example, the Biden administration is using \$51 per ton of carbon emissions; this quantifies the environmental impact of carbon emissions.)
 - ii. The cost of direct air capture (DAC) per ton should the District choose to pursue carbon capture as a means of meeting future targets.
- c. **Action 1.5c:** Facilitate a Sustainability Committee Meeting in October, January, April, and July of each school year.

Goal 2: Education: Expand the inclusion of sustainability in multi-discipline curricula, community engagement plans, and employee training by September 2023.

- A. **Strategy 2.1:** Student Curriculum (including extracurricular): Convene a sustainability curriculum team.
- B. **Strategy 2.2:** Analyze current sustainability curriculum offerings and identify gaps.

- C. **Strategy 2.3:** Develop a plan to incorporate sustainability education into multidisciplinary course offerings.
- D. **Strategy 2.4:** Develop external engagement and communication plan.
- E. **Strategy 2.5:** Employee engagement in sustainability.
 - a. **Action 2.5a:** Draft communication on policy and plan for employees.
 - b. **Action 2.5b:** Incorporate materials into onboarding.
 - c. **Action 2.5c:** Develop a recognition program for behavior-supporting policy/ plan.

Goal 3: Greenhouse Gas Emissions Reduction (Scope 1 and 2): Reduce greenhouse gas emissions by 45% from 2012 levels by 2030, 80% by 2040, and 100% by 2050.

- A. **Strategy 3.1:** Operations will work with consultants to develop a detailed energy road map that factors in energy efficiency upgrades, solar/renewable energy procurement, and on-site solar/renewable energy by volume for each strategy bucket in accordance with the greenhouse gas emissions reduction goal timeline. Test the road map using the Building Performance Analysis model.
- B. **Strategy 3.2:** Procure 100% renewable electricity by 2025.
- C. **Strategy 3.3:** Reduce annual electricity consumption for existing uses by 15% from the current level (2022) by 2030.
 - a. **Action 3.3a:** By 2030 set 2040 goals.
 - b. **Action 3.3b:** Lights:
 - i. Upgrade to more energy-efficient lighting.
 - 1. Benchmark where we are.
 - 2. Prioritize replacement.
 - c. **Action 3.3c:** Build upon previous energy audits and upgrades and look for opportunities to incorporate more efficient technologies
 - d. **Action 3.3d:** Establish a policy regarding adding energy use to the building and campus. (For example, should the District implement a hard cap on energy such that projects that add new energy use pay to reduce that energy use somewhere else in the portfolio?)
- D. **Strategy 3.4:** Reduce natural gas consumption for existing uses by 20% by 2030 from the benchmark level (2012).
 - a. **Action 3.4:** Develop an electrification strategy that includes education/learning about how and why, a tiered approach to infrastructure systems replacement, and a financing strategy with the end of establishing a “no new natural gas” policy.
 - i. **Action 3.4a:** Implement a real-time submetering system that can eventually integrate with a monitored performance system to identify excess energy use in real-time and make adjustments/notifications.
- E. **Strategy 3.5:** Incorporate green energy into new facility construction, and all new construction will have an Energy Use Intensity (EUI) of ≤ 25 .
- F. **Strategy 3.6:** Convert the D200 fleet to green energy and require bus service vendors to use 100% electric buses by 2030.
- G. **Strategy 3.7:** Operations will conduct an electrical service evaluation to identify the capacity needed for electrification of the building, fleet, and fueling for students/faculty/staff.
- H. **Strategy 3.8:** Provide EV stations for non-fleet vehicles. (Note: If we are going to be providing electricity to employees and students, we need to separate usage.)

- I. **Strategy 3.9:** Coordinate EV infrastructure planning with other village governing bodies.
- J. **Strategy 3.10:** Develop an embodied carbon plan including accounting methodology to complement the operational carbon tracking and reductions.
 - a. **Action 3.10a:** Identify the scale of embodied carbon impact over timeframes for the commitments.
 - b. **Action 3.10b:** Include embodied carbon impact along with operational carbon impacts (e.g., by doing x, which adds this much carbon to the atmosphere, we will reduce our operational carbon by this much, meaning the carbon investment will pay back in y years).

Goal 4: Water: Rightsize water use.

- A. **Strategy 4.1:** Develop a water action plan to establish a target performance requirement, a timeline for action, and strategies to achieve the targets.

Goal 5: Waste: Reduce non-energy waste in landfills by 80% by 2030.

- A. **Strategy 5.1:** Develop and implement a comprehensive (front and back of the house) composting plan.
- B. **Strategy 5.2:** Conduct periodic waste audits to establish a baseline and determine the largest sources of waste and develop a plan with education and measures for eliminating waste sources, increasing recycling, and composting food scraps.

Goal 6: Food: Increase healthy, local, and sustainable food options as part of the school lunch program.

- A. **Strategy 6.1:** Research local, sustainable school food meal programs at other K-12 schools and explore vendor models.
- B. **Strategy 6.2:** Abide by the principles of the Good Food Purchasing Policy
- C. **Strategy 6.3:** Incorporate a local, sustainable line item in the annual school food budget (amount TBD).

Goal 7: Sustainable Purchasing Policy

- A. **Strategy 7.1:** D200 will provide targeted solutions to minimize waste, encourage environmentally friendly supply chains, and look for innovative solutions in the general fields of energy, water, construction, HVAC, lighting, maintenance, landscaping, food services, transportation, and information technology, paper products, and refuse.
- B. **Strategy 7.2:** In fulfilling our commitment to environmental stewardship, all purchasing should meet or exceed guidelines for Environmentally Preferable Purchasing (EPP) set by the U.S. Environmental Protection Agency or one of the peer-reviewed sustainable product rating programs.