About E2040

A working group of the Board of Trustees comprised of trustees, faculty, staff, and students. Formed in January 2019, E2040 is responsible for developing a pathway to become a carbon-neutral campus.

Trustees

- Laura Daignault Gates ’72, chair of E2040
- Debora de Hoyos ’75 P’07, chair of the Board of Trustees*
- Amanda Hernandez ’18, trustee
- Patrick Lee, trustee
- Christopher T. Pasko, trustee
- Doug Hollett, trustee

Staff

- Rose Carpenter, deputy chief investment officer
- Dave Chakraborty, assistant vice president, facilities management and planning
- Paula A. Johnson, president*
- Kathryn Mackintosh ’03, WCAA executive director*
- Piper Orton, vice president, finance and administration, and treasurer

Students

- Anna Beyette ’21
- Claire Hayhow ’21
- Shreya Parjan ’21

Faculty

- Dan Brabander, chair of the Advisory Committee on Environmental Sustainability, Frost Professor in Environmental Science and professor of geosciences
- Robin McKnight, professor of economics
- Jay Turner, professor of environmental studies

*ex officio
E2040’s goals

Developing a plan that aspires to reach carbon neutrality by the year 2040.

1. A plan with specific targets that charts an achievable path to carbon neutrality
2. A plan that addresses all types of energy usage
3. A process that builds understanding, commitment, and enthusiasm for the plan across the community
4. A process that spurs environmental advocacy in all policy arenas
Taking a step back

In 2016, Wellesley adopted three primary goals to reduce our carbon footprint.

1. Reduce emissions by 37% by 2026
2. Reduce emissions by 44% by 2036
3. Undertake long-term planning to achieve carbon neutrality
Sources of greenhouse gas emissions before the start of our energy management program

- Natural gas for heating and electricity: 24,000T
- Purchased electricity: 2,700T
- Scope 1 small source emissions: 2,800T

Total emissions: 29,500T
Wellesley’s greenhouse gas reduction forecast

2010–2017: 32,600T

2017: 11%

2022: 37%
Meet 2026 37% goal

2022–2030: 44%
Meet 2036 44% goal

2030: 90%

For residual GHG left in 2040, carbon offsets will be purchased

Purple rep. GHG from electricity use
Dark brown rep. GHG from natural gas used for the heating plant
Magenta rep. GHG from other sources
E2040’s proposed roadmap: a technical solution

There are six main steps Wellesley will take over time to achieve carbon neutrality.

1. **2010**
   - 32,600T
   - Improve energy efficiency through CUP, building renovations, energy conservation measures (ECMs), and distribution

2. **2020**
   - 29,400T
   - Electricity from renewable sources—grow from 20% to 100%

3. **2030**
   - 16K–18K T
   - Reduce greenhouse gas emissions (GHG) from small sources

4. **Decision-making milestone:** Reduce our natural gas use through geothermal wells or low-temp boiler plant

5. **2040**
   - 9K–11K T
   - Eliminate steam and reduce natural gas use

6. **Buy carbon offsets for residual GHG**
Investments needed to achieve net carbon-neutral campus

Investments in progress

$26 Million
invested in new energy efficient chiller plant, peak shaver plant, boiler retrofits

$6 Million
in campus-wide energy conservation projects

Investments needed for the future

$500 Million
needed for planned renovations

+$200 Million
needed for conversion of the plant from fossil fuels