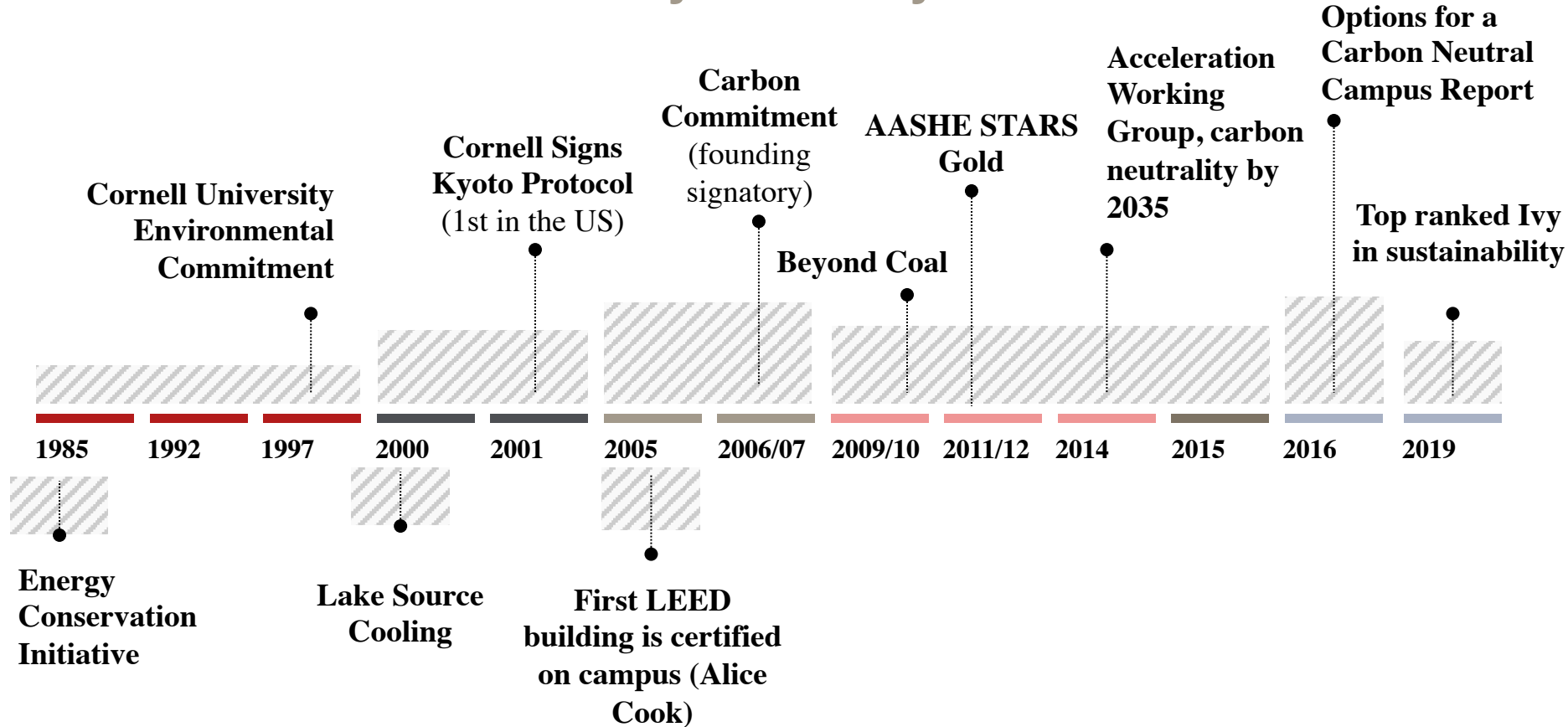


Sustainable Cornell

Board of Trustees | January 2020

Cornell Sustainability History



Climate Action Plan

AVOID



Avoid carbon-intensive activities

REDUCE



Reduce energy demand with aggressive energy conservation and engagement programs

REPLACE



Replace fossil fuels with low-carbon renewable energy

OFFSET



Offset what remains with actions connected to our mission

ENGAGEMENT PROGRAMS ARE THE KEY TO **AVOID** / **REDUCE**

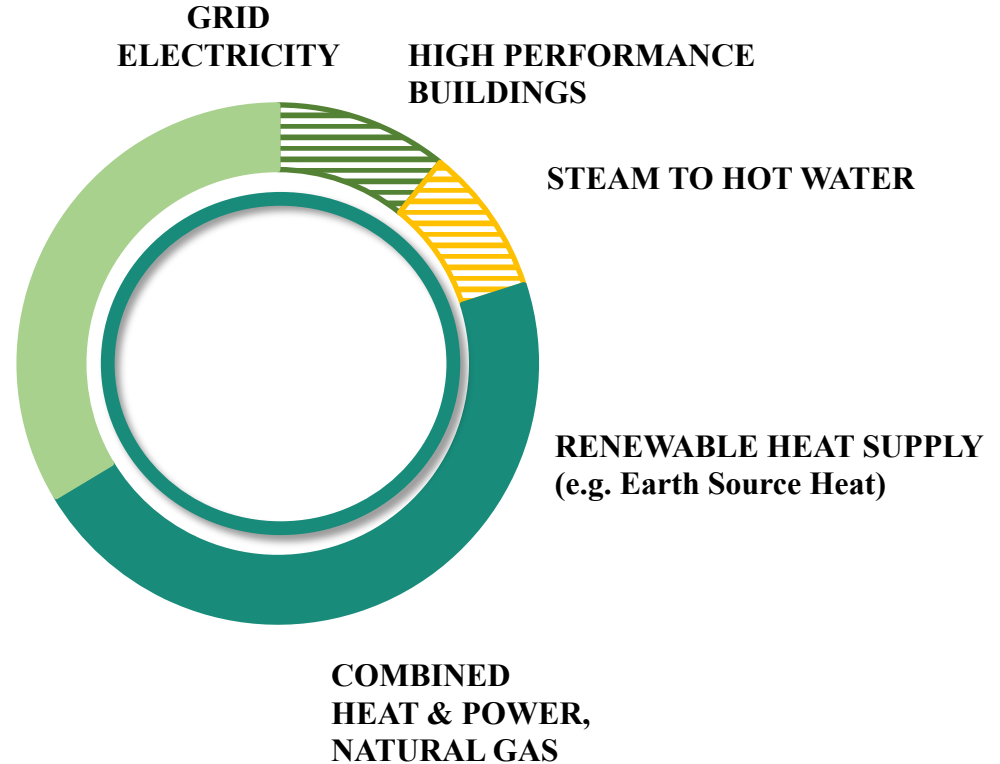
Every member of the campus must help eliminate redundancy and waste as we invest in new technologies

Cornell Energy Systems Transformation

CO2 Emissions from Building Energy Use (metric tons)

2008	260,000
2018	165,000
2035	0

**RENEWABLE
ELECTRICITY**



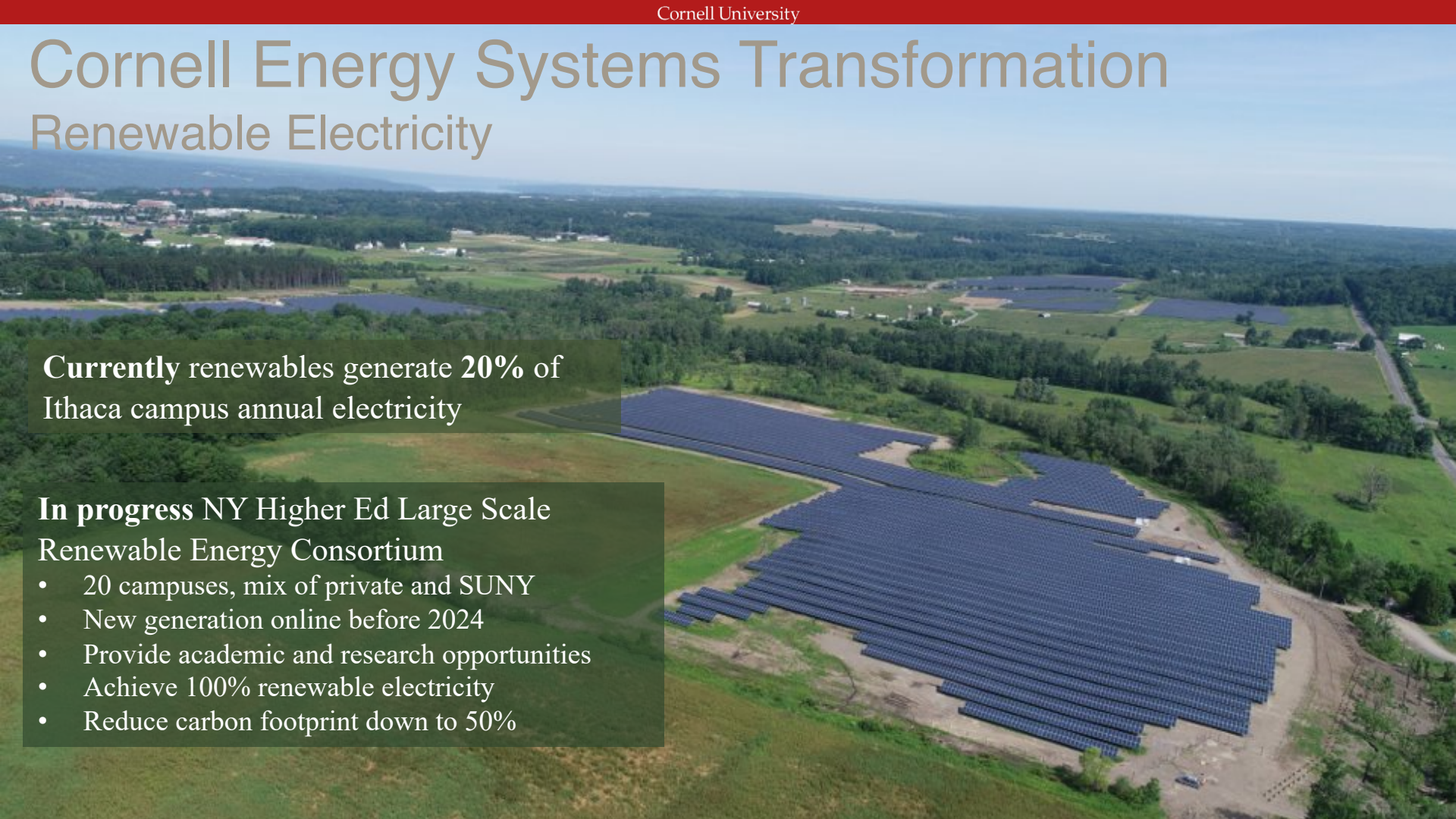
Cornell Energy Systems Transformation

Renewable Electricity

Currently renewables generate **20%** of Ithaca campus annual electricity

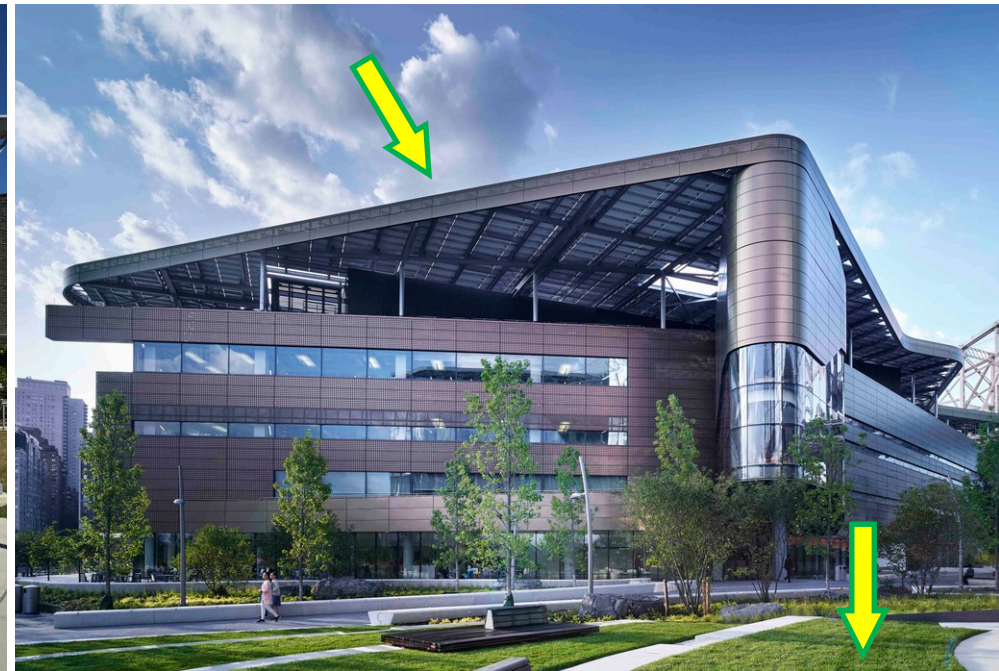
In progress NY Higher Ed Large Scale Renewable Energy Consortium

- 20 campuses, mix of private and SUNY
- New generation online before 2024
- Provide academic and research opportunities
- Achieve 100% renewable electricity
- Reduce carbon footprint down to 50%



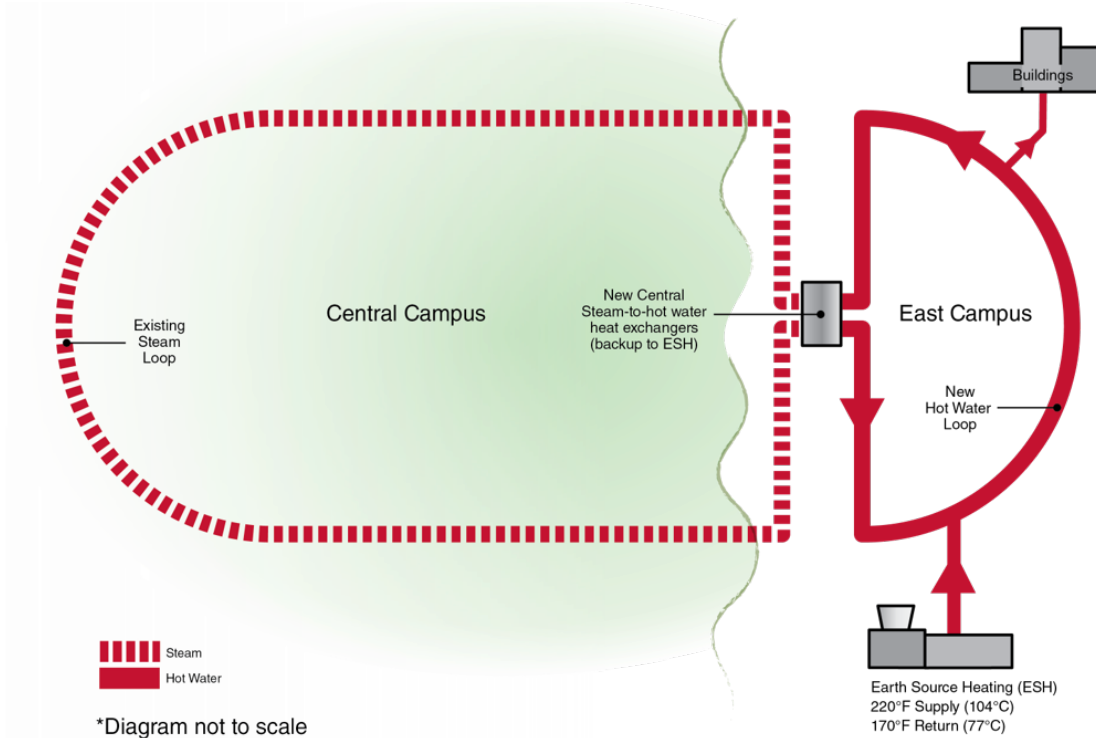
Cornell Energy Systems Transformation

High Performance Buildings



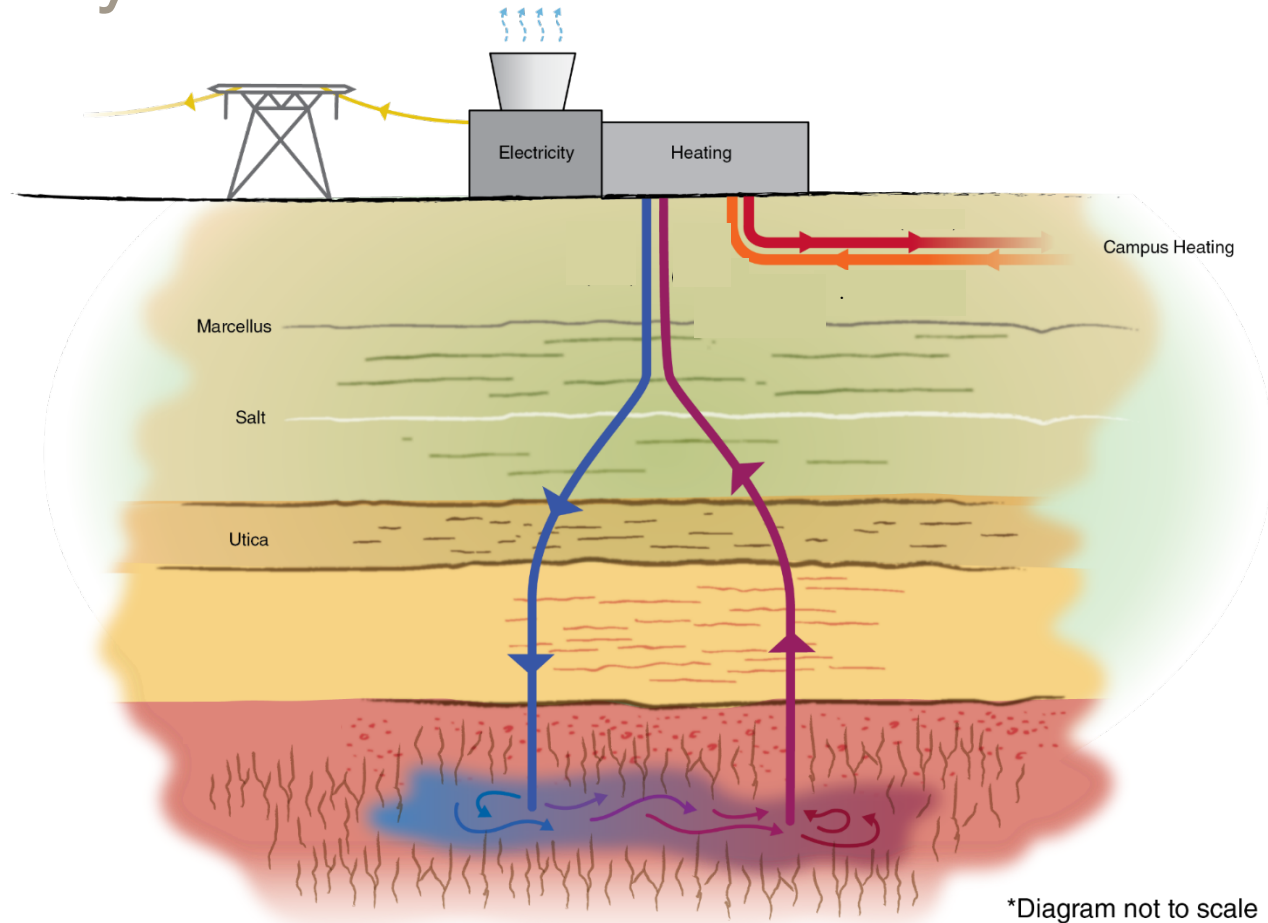
Cornell Energy Systems Transformation

Convert Steam to Hot Water Distribution

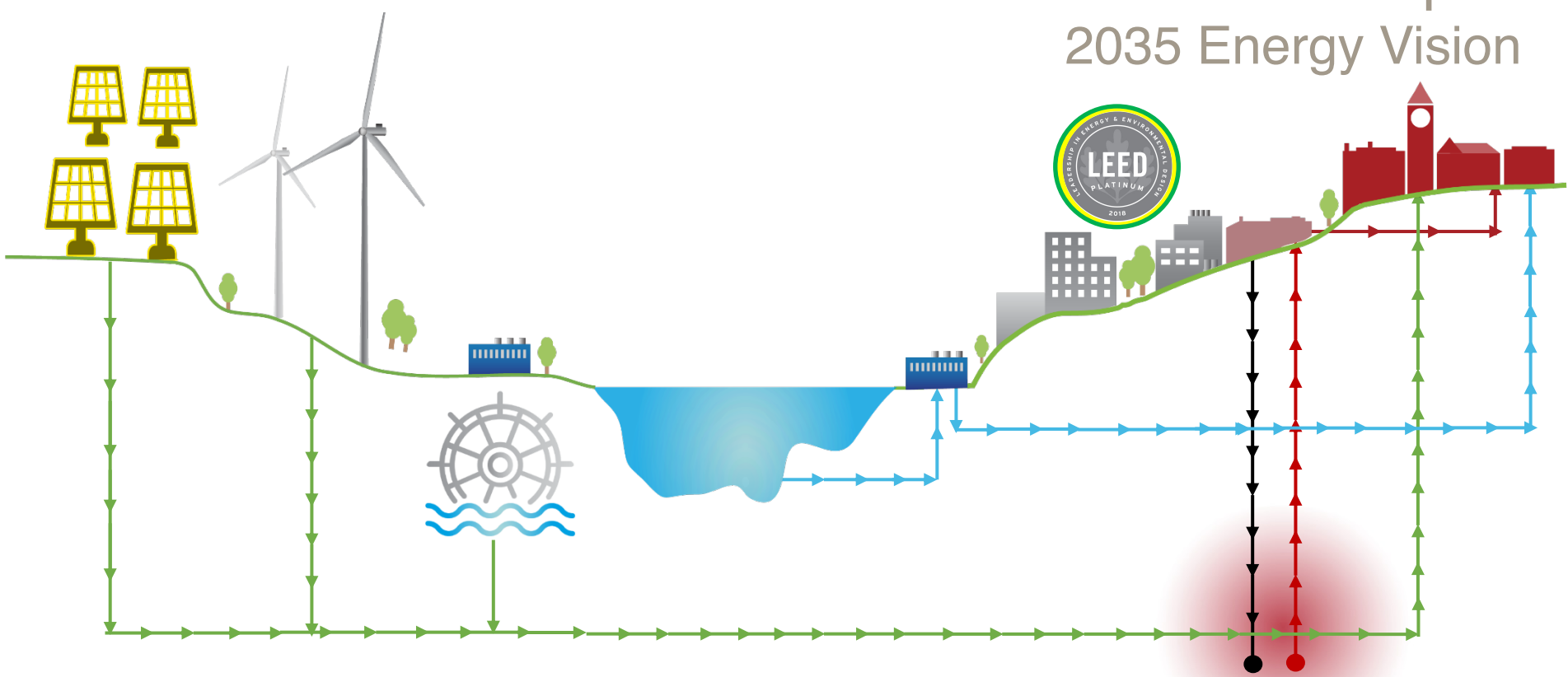


Cornell Energy Systems Transformation

Renewable Heat



Cornell Carbon Neutral Campus 2035 Energy Vision



**RENEWABLES
POWER**

**LAKE
COOLS**

**EARTH
HEATS**

The background of the slide features a large, semi-transparent watermark of the Cornell University seal. The seal is circular and contains the text "CORNELL UNIVERSITY" at the top and "FOUNDED A.D. 1865" at the bottom. In the center of the seal is a shield with various symbols, including a book and a sun.

**Sustainable
Cornell Council**
Established Fall 2019

Cross-campus initiative to accelerate the impact of our sustainability and climate leadership vision by leveraging our strengths as a campus and community.

Sustainable Cornell Council: Committee Structure

LEADERSHIP TEAM

Direct and coordinate Cornell's role as an international leader in addressing climate change and sustainability, using our campus as a living laboratory

STEERING COMMITTEES

Identify topical priorities and develop work plans to advance progress

CARBON NEUTRAL CAMPUS

Advance campus carbon neutrality through strategic implementation of the Climate Action Plan

CAMPUS OPERATIONS

Advance initiatives for a model sustainable campus that support climate resilience and human and planetary health

EDUCATION & ENGAGEMENT

Cultivate literacy and a culture of sustainability leadership that enables participation across the campus community

WORKING GROUP

WORKING GROUP

WORKING GROUP

WORKING GROUP

WORKING GROUP





Sustainable Cornell Council FY19 Priorities and Working Groups

CARBON NEUTRAL CAMPUS	PROPOSED WORKING GROUPS (3)
Carbon Neutrality	Air Travel Carbon Offset Pilot for Faculty Make or Buy Electricity Protocol for Upstream Methane Leakage
EDUCATION & ENGAGEMENT	PROPOSED WORKING GROUPS (3)
Student Literacy	Incoming Student Climate Literacy
Behavior Change	Choice Architecture for Behavior Change
Living Laboratory	Living Laboratory Program Assessment
CAMPUS OPERATIONS	PROPOSED WORKING GROUPS (3)
Transportation	Transportation Impact Prioritization
Materials Management	Purchasing and Inventory Optimization
Food / Food Waste	Dining Operations Food Waste Reduction



Partner Initiatives

CARBON NEUTRAL CAMPUS	Partner/Existing Initiatives
Carbon Neutrality	<ul style="list-style-type: none"> • Earth Source Heat • Renewable electricity • Steam to hot water conversion • Energy Conservation Initiative • Building energy standards • Transportation: commuting modes, fleet vehicle conversion, campus circulator
CAMPUS OPERATIONS	Partner/Existing Initiatives
Transportation	<ul style="list-style-type: none"> • Campus Circulator negotiations with TCAT (Transportation) • Employee Assembly Transportation Ctte. • Pending UA Resolution on Campus Circulator • 2018 Parking Optimization Study (Transportation) • TDM Plan (Transportation)
Materials Management	<ul style="list-style-type: none"> • Procurement Committee & Sub-Committees with purchasing users across units
Food / Food Waste	<ul style="list-style-type: none"> • Menus of Change (Dining) • Assessment of metrics tracking tools (LeanPath / Winnow) (Dining)


**EDUCATION &
ENGAGEMENT**
Partner/Existing Initiatives
Student Literacy

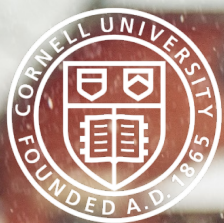
- North Campus Faculty Programs' themes: Sustainability & Climate Change, Health & Well-Being, Diversity & Inclusion/Equity
- Learning Where You Live courses (e.g., "5 Pretty Important Things" course (launch F2020) contains climate module)
- Sustainability course catalogue
- One-credit colloquia/seminars for first-year students in undergraduate colleges
- Climate Literacy Survey (Jon Schuldt and Linda Croll Howell)
- Climate Literacy White Paper (Mike Hoffmann)

**Behavior
Change**

- Coordinate with SCC Steering Committees and Working Groups to recommend choice architecture, behavior change, and engagement opportunities to drive towards shared goals.

**Living
Laboratory**

- Cornell Atkinson research
- Engaged Cornell
- Public Service Center
- Campus Sustainability Office Living lab worksheet
- Campus Sustainability Office supports 30+ projects / year
- Energy Smart Communities
- Earth Source Heat
- Energy & Sustainability Department supports 10+ projects per year
- Tours offered of solar farm, CHP, other energy facilities
- Climate literacy survey for students



Discussion