

2018

Campus Sustainability Progress Report Cornell University

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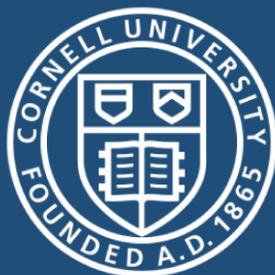


Table of Contents

- Transmission Letter to Cornell President 3**
- About Campus Sustainability 4**
 - Governance & Support..... 4**
 - Senior Leaders Climate Action Group (SLCAG) 4
 - President’s Sustainable Campus Committee (PSCC) 4
 - Campus Sustainability Office 4
 - Student Environmental Collaborative (ECO) 4
- Sustainability Progress Metrics 5**
 - Climate Change..... 5**
 - Our Goal 5
 - Our Strategy 5
 - Our Progress to Date 5
 - Greenhouse Gas Inventory 5
 - National Comparison 6
 - Energy Conservation..... 7**
 - Renewable Energy..... 7**
 - Living Laboratory 8**
 - Waste, Food, and Water 9**
 - Comprehensive Metrics (AASHE STARS®)..... 9**
 - Innovation 10**
- 2018 Work Priorities and Progress 11**
 - Senior Leaders Climate Action Group 11**
 - President’s Sustainable Campus Committee..... 12**
 - Sustainability Plan 12
 - Additional Work..... 12
- Sustainability Awards 13**
- Appendix A 2018 Detailed STARS Credits Report 15**
- Appendix B New York Higher Ed Large Scale Renewable Energy Project Announcement..... 16**

Transmission Letter to Cornell President

2018 Campus Sustainability Report

Dear President Pollack,

Cornell University is again the leading Ivy University for sustainability, for the second year in a row. This year our campus community advanced our leadership in sustainable operations, energy conservation, and living laboratory education in countless ways. We achieve this through deep, purposeful collaboration across staff, faculty, students and community partners.

Cornell is committed to the goal of reaching carbon neutrality by 2035 and developing solutions to 21st century sustainability challenges through our 'living laboratory approach.' We see our campus buildings, operations, and people as real-time laboratories for studying and demonstrating innovative approaches to renewable energy, alternative transportation, and human well-being (just to name a few).

Highlights of Cornell's sustainability progress this year:

- Gold Rating in the national [Sustainability Tracking, Assessment, and Rating System](#) for a 7th year, and ranked #7 in the Princeton Review's Top Green Schools and in the [Sierra Club's Top 20 Cool Schools](#)
- Awarded the national [Leadership in Green Energy Education Award](#) by the U.S. EPA and Center for Resource Solutions, as part of our membership in the EPA Green Power Partners Program
- Top 15 most aggressive production of renewable energy among any type of institution
- Achieved successful 36% reduction to carbon emissions in pursuit of our goal to reach neutrality by 2035
- 50 Green Offices and 12 Green Labs are certified across campus
- The Sustainable Landscapes Trail launched with 20 living laboratory locations featuring student-staff-faculty designed spaces which promote exploration, water health, ecological benefits, and campus beauty
- Launched the Peterson Green Parking Lot, with sustainable infrastructure practices which turned a standard parking lot into a natural landscape by capturing rainwater where it falls, filtering out pollutants and reducing large volumes of runoff
- Launched the New York Y Higher Ed Large Scale Renewable Energy Project, a consortium of public and private institutions in New York State who will work to advance large, collective renewable energy development
- Launched a new network of "Sustainability Leaders" to enable staff and other community members across campus to promote sustainability where they work
- All of our solar farms use sheep to manage vegetation, further reducing carbon impact and keeping the land in active agricultural use.
- Launched composting across North Campus residential communities with support from 100s of students

The President's Sustainable Campus Committee (PSCC) worked within its 150 cross-campus community membership to advance this work. The PSCC and the Senior Leaders Climate Action Group (SLCAG) have been tasked by the Provost to reconsider sustainability governance and oversight for a more streamlined approach. Our community looks forward to launching with a new, single leadership group to help streamline and advance our efforts for carbon neutrality and a sustainable campus in 2019.

Sincerely,

Co-Chair, Bert Bland, Associate Vice President, Energy & Sustainability, Facilities & Campus Services

Co-Chair, Mike Hoffmann, Executive Director, Cornell Institute for Climate Smart Solutions, Professor, Dept. of Entomology

About Campus Sustainability

Governance & Support

Cornell University currently organizes campus sustainability efforts through the *President's Sustainability Campus Committee (PSCC)* and *Senior Leaders Climate Action Group (SLCAG)*. As of 2018 Provost Michael Kotlikoff has tasked to two groups with created a single Sustainable Cornell Council, expected to launch in FY2019. Learn more at sustainablecampus.cornell.edu/about.

Senior Leaders Climate Action Group (SLCAG)

The Senior Leaders Climate Action Group was charged in 2015 to direct Cornell's role as an international leader and exemplar to the world in addressing climate change and promoting sustainability through research, education, engagement, and operations – using our own campus as a living laboratory. 7 members have focused on advancing nine key priorities from the Climate Action Plan. Lance Collins, Dean of Engineering & Rick Burgess, Vice President for Facilities and Campus Services serve as co-chairs.

President's Sustainable Campus Committee (PSCC)

The PSCC has provided advisory facilitation and leadership on campus and regional sustainability since 2008. The 100+ faculty, staff and student members promote a culture of sustainability on campus through cross-campus collaborations and engagement programs, and recommend policies, projects and programs that enhance Cornell's aspirations to serve as a living laboratory for sustainability solutions. PSCC is comprised of a core Executive committee and focus teams which serve as networks to connect partners across campus around each topic. The PSCC is co-chaired by Mike Hoffmann, Executive Director of the Cornell Institute for Climate Smart Solutions, and Bert Bland, Associate Vice President for Energy & Sustainability.

- Buildings & Energy Focus Team
- Climate Change Focus Team
- Land & Water Focus Team
- Food Focus Team
- Materials Management Focus Team
- People Focus Team
- Transportation Focus Team
- Communications Team

Campus Sustainability Office

The Campus Sustainability Office (CSO) works to empower, equip, and engage the Cornell community to create a sustainable Cornell. CSO is responsible for managing the PSCC, its focus teams, the SLCAG, and numerous other participatory organizational structures and resources related to sustainability. The CSO manages external sustainability reporting, carbon neutrality & sustainability planning, engagement and leadership programs, and provides strategic project management for renewable energy projects.

Student Environmental Collaborative (ECO)

ECO serves as an umbrella organization for the >40 sustainability focused student organizations on campus. It receives byline funding from the Student Assembly for this purpose. CSO and ECO have created a strong collaborative partnership to ensure strong synergy across faculty, staff, and student sustainability priorities and initiatives.

Sustainability Progress Metrics

Climate Change

Our Goal

Cornell University is committed to the goal of reaching **carbon neutrality** for the Ithaca campus by **2035**. Our goal applies to the Ithaca campus' energy use, business travel, and daily commuting.

Our Strategy

Cornell is a signatory of the **Carbon Commitment**, a network of 400 U.S. campuses dedicated to reaching carbon neutrality.

The overarching strategy as defined by Cornell's **Climate Action Plan** is to first avoid or reduce emissions to the extent practicable through behavioral, operational, and capital improvements, then supply remaining campus needs with 100% renewable energy, and finally offset those emissions we cannot eliminate with mission-linked offsetting actions.

Our Progress to Date

As of 2018, Cornell has **reduced emissions 36%** as compared to our 2008 baseline primarily through energy conservation, innovative energy systems transformation, green buildings, and the engagement of the full campus community in behaviors that reduce greenhouse gas emissions.

Greenhouse Gas Inventory

Cornell has set interim targets for carbon emissions reduction as required by the Second Nature program: 20% by 2012 (goal met) and 50% by 2025 (on track to achieve). A greenhouse gas (GHG) inventory for the Ithaca campus is revised every year (as of 2016). GHG data and progress reports are **publicly available**.

Methodology

Cornell uses the operational control approach for the Ithaca campus as defined by the World Resources Institute's GHG Protocol. Cornell measures carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) in the scopes outlined here and converts to metric tons of CO₂ equivalent (MTCO₂e) for a single reporting metric.

Scope

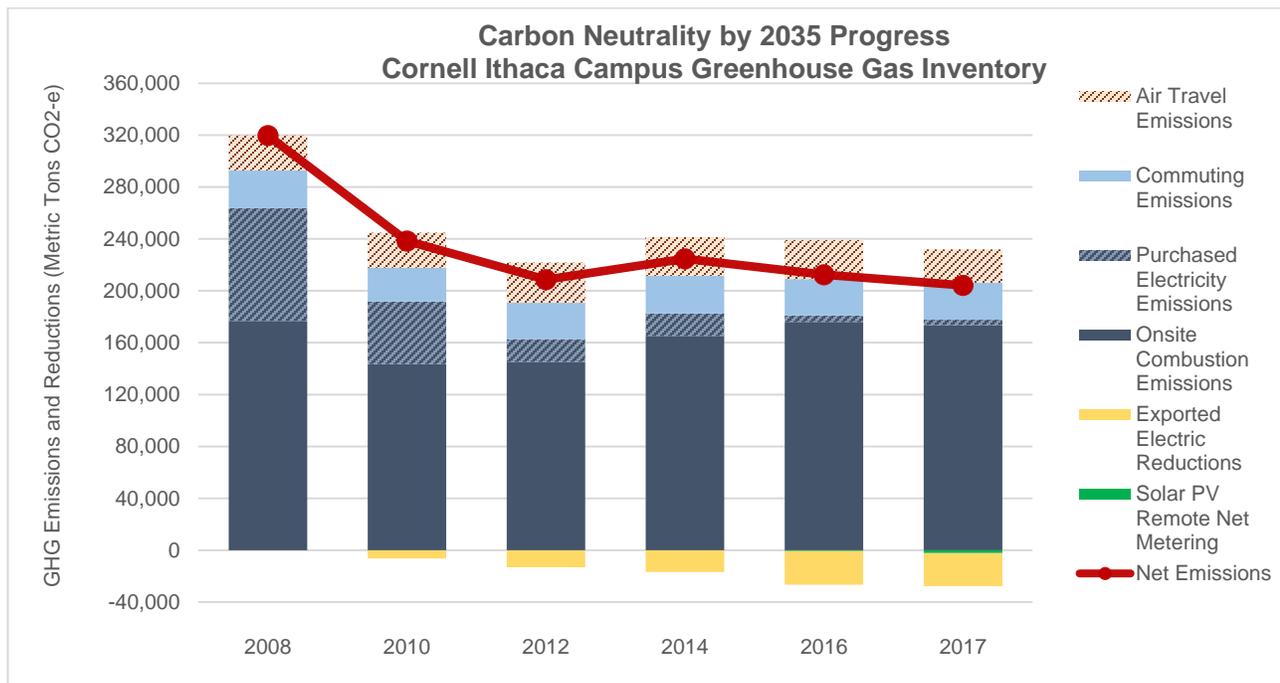
The President's Climate Leadership Carbon Commitment uses a standard greenhouse gas accounting protocols to ensure consistency across institutions. The following are measured annually for the Ithaca campus against a 2008 baseline:

- Scope 1: Fossil fuel use in boilers, central energy plant, & campus owned vehicles. This energy is used to heat/cool buildings or to directly generate electricity
- Scope 2 (Indirect): Purchased electricity
- Scope 3 (Indirect): Business travel & daily commuting

Cornell also has estimated upstream methane emissions from natural gas extraction and distribution in a separate inventory as an emerging area of greenhouse gas accounting.

Greenhouse Gas Progress since 2008

The figure below shows a steady decrease in net emissions (measured in metric tons of CO2 equivalent) since 2008.



National Comparison

As of September 2018, 485 institutions are signatories to the President’s Climate Leadership Carbon Commitment. Only those institutions who have sustainable financial models and strong community oversight and participation have made progress.

- **39% of all institutions have made no progress** towards neutrality (66 schools) or have increased emissions (124 schools)
- **34%** of all institutions have made at least a 20% reduction to date
- **19%** of all institutions have made at least a 35% reduction to date
- **12%** of Doctorate granting institutions have made at least a 35% reduction to date
- **2%** of institutions with over 20,000 students have made at least a 35% reduction to date
- 8 institutions have achieved carbon neutrality, but all have done so with the help of offsets

Cornell has the 24th largest net emissions of any participating institution. We are one of the largest campuses in the President’s Climate Leadership Carbon Commitment, with just 17 institutions managing over 15 million sq. ft. participating. Cornell ranks as follows for overall emissions reduction:

- **84th** in the U.S. for overall carbon emissions reduction, of any institution type
- **10th** in the U.S. for overall carbon emissions reduction among Doctorate granting institutions
- **7th** in the nation for campuses with over 20,000 students
- **2nd** in the nation for campuses with similar gross square feet of building space

Energy Conservation

Our Strategy

Cornell University's successful Energy Conservation Initiative (ECI) is a critical component of the Climate Action Plan. Since 2000, ECI projects have held campus energy use flat despite a 20% growth in square footage connected to campus utilities, thereby reducing the need for procuring renewable energy supply and infrastructure maintenance.

Cornell's Building Energy Dashboard was relaunched as the mobile-friendly "**Big Red Scoreboard**" during Energy Smackdown this fall. The Facilities & Campus Services Green Team used the Scoreboard in real-time to measure the impact of their "Lights Out" one-hour event for employees. The event resulted in a 20% decrease vs Humphreys' average electrical demand, which was sustained for the rest of the day.



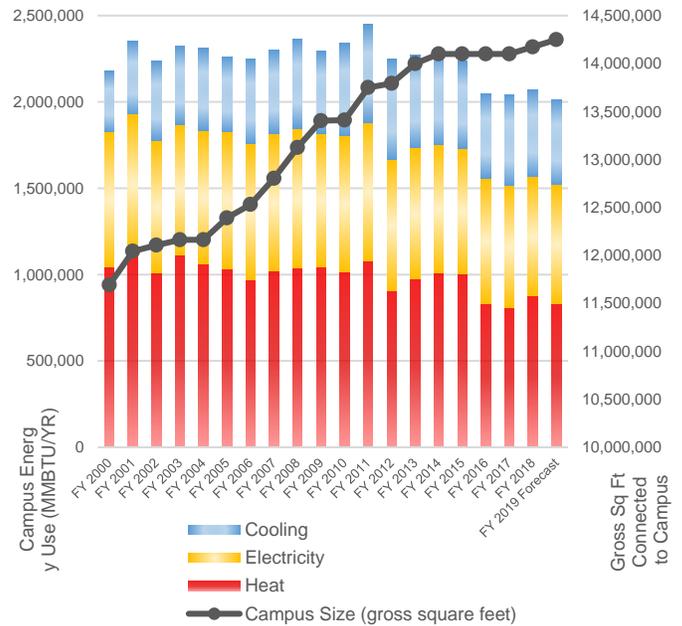
Figure 1: Data from the Big Red Scoreboard shows reduced electricity consumption during an engagement event

Our Progress

This year's projects will save the campus \$1.4 million in energy costs and reduce over 3,500 tons of carbon annually. The campus saved 1.5 million kWh of electricity and \$115,000 during the annual winter shutdown event over the break, equivalent to eliminating the energy use of 115 homes for an entire year.

Colleges and units directly benefit from avoided energy costs, so powering down makes an impact on each college/unit as well as improving overall campus sustainability.

Campus Building Energy Efficiency



Renewable Energy

Our Goals

Cornell's carbon neutrality goal includes meeting the Ithaca campus energy needs with 100% renewable energy. Cornell ranks as follows for renewable energy achievements:

- Top 15 production of renewable energy among any type of institution
- Top 10 production of renewable energy among Doctorate granting institutions
- One of 160 institutions recognized as an EPA Green Power Partner

Lake Source Cooling

Currently, Lake Source Cooling supplies the majority of Cornell's cooling needs using no refrigerants and over 85% less electricity than traditional chillers. Cornell's five regional solar farms, campus hydroelectric plant and rooftop solar generate enough electricity to offset 10% of the annual Ithaca campus electricity use.

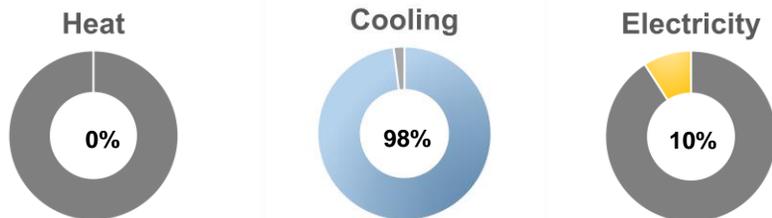
Solar

Work is underway on an 18MW community solar farm on leased Cornell land in Dryden, which once online in 2019, will bring the total renewable energy offset for campus electricity to 20%. The regional solar farms were built using a power purchase agreement model requiring no Cornell capital, yet providing cost neutral renewable electricity for campus (purchased with operating funds that would otherwise have been spent to purchase grid power). The power generated by the community solar farm will be sold to retail utility customers at a discount over the utility rate. Cornell will receive ~\$70k in annual lease payments from the solar developer. The renewable energy credits Cornell receives from all of these projects are worth \$100,000s annually. The developers have attracted more than \$70M of external investment to finance the projects.

All of our solar farms use sheep to manage vegetation, further reducing carbon impact and keeping the land in active agricultural use. Research projects on hydrology and best practices for successful sheep management are underway on our farms, with plans for additional research in partnership with the National Renewable Energy Lab on agricultural co-location, soil restoration, soil carbon sequestration, and pollinator support.

Our Progress

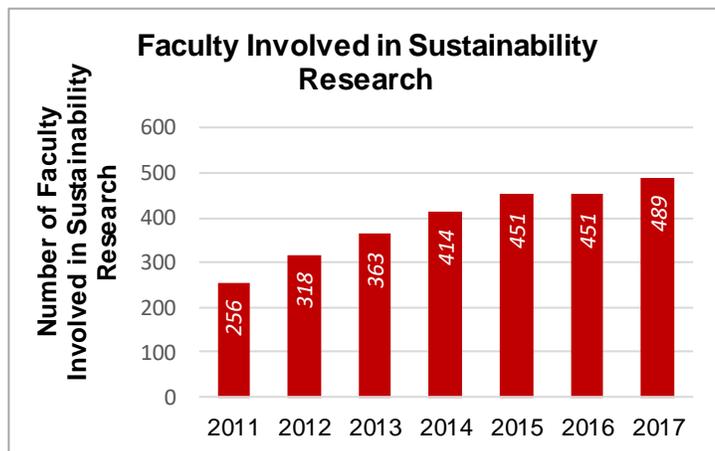
Currently renewable energy provides 0% of our heating, 98% of cooling, and 10% of electricity needs.



Living Laboratory

Data collected by the Atkinson Center for a Sustainable Future

Faculty across disciplines are engaged in teaching and researching sustainability and climate change solutions. The increase in courses reflects improved tagging such as a more encompassing definition of “sustainability” (e.g. social and environmental justice). The figures below show a steady increase in both sustainability courses offered and total numbers of faculty involved in sustainability research since measurement began in 2011. Currently, 489 faculty are involved in research and 732 courses offered on sustainability.



Waste, Food, and Water

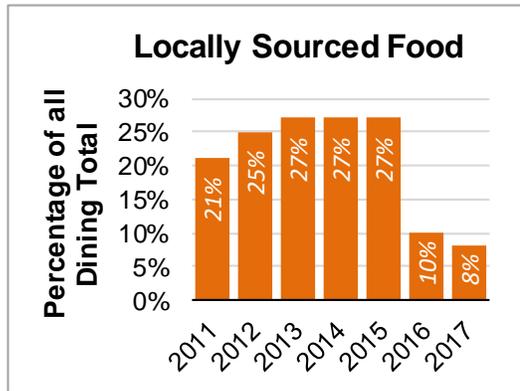
Waste

Increased outreach and education on sustainable materials management, emphasizing the importance of overall waste minimization over waste diversion has helped reduce total campus waste. The figure here shows current recycling, compost, and landfill at roughly 11,000 tons per year.



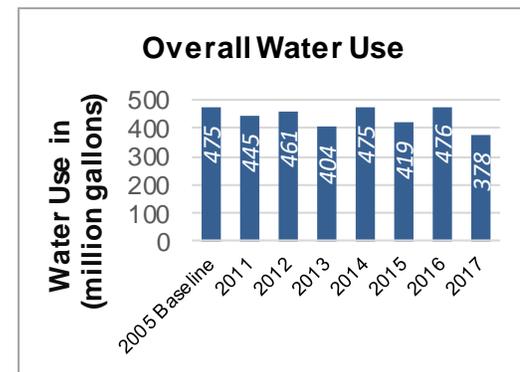
Food

2016 did *not* see a total drop or large scale change in Cornell's local food purchases and practices. The figure here shows current local food sourcing as 8%. AASHE STARS, our national sustainability reporting mechanism, significantly changed their standard for "local food".



Water

The numbers at left reflect total water use, including irrigation. Cornell's agricultural water needs vary considerably year over year depending upon weather conditions. The figure here shows overall water usage in millions of gallons as 378 this year.



Comprehensive Metrics (AASHE STARS®)

The Sustainability Tracking, Assessment & Rating System™ (STARS®) is a transparent, self-reporting framework for colleges and universities to measure their sustainability performance. STARS encompasses long-term sustainability goals for already high-achieving institutions as well as entry points of recognition for institutions that are taking first steps toward sustainability. Cornell is the highest ranked Ivy League institution in STARS.

[Browse our full report here.](#)

Our Goal & Progress

It is a goal of the PSCC to help Cornell University achieve STARS Platinum, which requires 85pts or above. Cornell has achieved a Gold rating every year of participation, for a total of 7 Gold Ratings since 2011. Cornell is one of the lowest scoring Universities in Investment & Finance, and one of the highest in Climate, Diversity, and Coordination & Planning. See Appendix A in this report for a full detailed accounting of our scores.



2011

N/A



2012

N/A



2013

N/A



2014

Points: 68.46



2015

Points: 70.27



2016

Points: 68.49



2017

Points: 74.50

Innovation

Anabel's Grocery

Anabel's is a volunteer run grocery aimed at reducing student food insecurity and increasing access and education on healthy food choices. Run "for students, by students," the store launched after a study indicated 1 in 5 undergraduate students regularly skipped meals due to financial constraints.

Sustainable Landscapes Trail

The Sustainable Landscapes Trail highlights the sustainable design and ecosystems services of living laboratory designed natural spaces across campus. A map and physical trail features landscapes with unique sustainability features which encourage understanding of the human and planetary wellness features of the natural campus landscape.

Johnson Museum Sustainable Design

Museums are some of the most difficult buildings to make energy efficient because many of the art pieces need specific humidity and temperature conditions to be maintained. The Johnson Museum of Art on Cornell's campus partnered with the campus's Energy Conservation Team to make updates which resulted in a reduction in energy use of 40% (and over 56% for heating).

Sustainability and Environmental Communications Internship (COMM 30800)

Sustainability and Environmental Communication: From the Lab to the World is a program designed to accelerate applied solutions to campus and community challenges. Undergraduate students partner with the Campus Sustainability Office, our local EcoVillage at Ithaca, and national organizations such as the Environmental Defense Fund, in engaged learning internship experiences to promote pro-environmental attitudes and engagement.

2018 Work Priorities and Progress

Senior Leaders Climate Action Group

SLCAG identified critical priorities for achieving the campus carbon neutrality goal *requiring senior leadership action or involvement*. Their current status is as follows.

Priority 1: Campus Engagement

In 2018, a Massive Open Online Course (MOOC) - Climate Change Science, Communication, and Action Online was offered as a one-credit course for the first time. Globally, it has reached nearly 3,000 participants. Climate change and sustainability modules have been incorporated into staff development training. The Vice Provost for Undergraduate Education has initiated planning for a new course on climate change of interest to incoming students as well as others. Part of this course will be open to the entire Cornell community. The Behavior Change Working Group (BCWG) continues to determine ways to integrate sustainability and climate change literacy into employee job descriptions and competencies, supervisor training, performance dialogues, skills for success, leadership skills for success, and on-boarding. The BCWG convened the Climate Change Literacy subgroup which crafted recommendations for integrating climate change literacy into key co-curricular activities for students and employees.

Priority 2: Energy Efficient Buildings

The Cornell standard for new/renovated building energy performance is 30% below building energy code, and the goal is 50% where cost effective. Capital projects are required to identify the proposed energy conservation measures, the target energy performance, and the status of the energy model vs the target at each step of the approval process - starting at project conception. The project approval request (PAR) must clearly identify the utilities O&M expense, impact on campus energy use, and carbon impact. The e-Builder, e-Par and Project Intake tools have been created and implementation with project manager training is being planned. Funding sources for energy conservation methods in capital projects that are prudent and economical, but for which there is no budget, needs to be identified.

Priority 3: Mission-Linked Carbon Offsets

A voluntary travel offset pilot that could be facilitated in Concur has been proposed. A task team worked to address initial SLCAG feedback through engagement with the Faculty Senate and University Assembly, meetings with interested faculty and staff, and three small-scale pilots. Though there was general support and enthusiasm, the team has concluded that some level of integration with the Concur travel system is critical to any further progress. An effort to work with Planning/campus units to identify potential land for afforestation & renewable energy efforts has been endorsed. A 110 acre, 18MW community solar farm on land leased from Cornell is under construction. All of the power will be sold to retail utility customers and Cornell will receive the renewable energy credits from the project that will be used to offset campus GHG emissions. The process to identify other land appropriate for afforestation or additional renewable energy projects is ongoing.

Priority 4: Greenhouse Gas Inventory Protocol Review

The purpose of the GHG inventory is to drive change and inform progress towards Cornell's Ithaca campus carbon neutrality commitment. The official inventory protocol established by the organization managing Cornell's public carbon neutrality commitment has not changed since 2008. Cornell's inventory only encompasses the Ithaca campus, and does not include two "scope 3" items that are tracked and communicated by Cornell. These are not included in the bottom line measurement of campus emissions vs the original baseline:

- Upstream methane leakage would require an approved methodology and a plan for annual calculations.
- Carbon sequestered on Cornell managed forest land that is a result of active "additional" management would require an approved methodology and a plan for continuity of forest management, data collection, and calculations.

Priority 5: Electricity

Renewable electricity projects online or under development are equivalent to about 20% of campus power. Looking ahead, Cornell has joined with over 20 State University of New York (SUNY) and private NYS higher education institutions to form a consortium for developing 100s MW of new, large scale renewable energy projects in New York State. The consortium plans to consider large-scale solar photovoltaic, wind, hydroelectric and/or energy storage projects for development in New York State. There is potential to achieve the goal of 100% campus renewable electricity through the initiative. The PSCC Climate team has drafted a set of project drivers to guide pursuit of future projects according to their relative impact and economics. Low grid power prices and the lack of a carbon charge are ongoing challenges.

Priority 6: Heat

The US DOE awarded a \$720K planning grant for Earth Source Heat and, together with \$780K in College philanthropy, a collaboration of Facilities staff and College of Engineering faculty and students are advancing research and study work to support the project. A fundraising team headed by Dean Collins is looking to the state for the balance of Preparatory Phase funding and money for a test well; a total of about \$15M is sought. Meanwhile, Facilities staff are finalizing a plan for gradual and phased conversion of the campus steam distribution system to hot water, a move that will save energy and future maintenance costs while

accommodating Earth Source Heat and other renewable options.

Priority 7: Transportation

Cornell was awarded \$7M from DOT to lead a new Center for Transportation, Environment, and Community Health (**CTECH**) to advance transportation sustainability in its broader human and environmental contexts. Team is exploring how to integrate Cornell Climate Action Plan actions as living lab components (including, but much broader than, EVs). Several project teams are already working with Cornell's Transportation Department on living lab projects and initiatives, including a feasibility project for bio-diesel, transit behavioral modeling, and participation in the **CURIE** program in July 2018.

Priority 8: Inclusion in University Strategic Planning

Since there is no plan to create a University Strategic Plan per se, SLCAG agreed to interpret this priority as inclusion in other, existing or pending, strategic plans including but not limited to the Campus Master Plan and Provost's Radical Collaborations. It is noted that one of the Radical Collaborations is on **Sustainability** and the planning was led by David Lodge. The Campus Sustainability Plan is currently being updated (this includes creating goals akin to the carbon neutrality goal across other sustainability topics), as is the Atkinson Center for a Sustainable Future strategic plan.

President's Sustainable Campus Committee

Sustainability Plan

The primary focus of the PSCC over the past year has been development of a major update of the Sustainability Plan. Led by a steering committee under the direction of the PSCC Executive Committee, the draft update includes for the first time high-level, strategic and measurable goals across each of the campus sustainability focus areas. Additionally, an overall Commitment statement and three visionary Aspirations were developed. The process has included several campus-wide feedback sessions as well as targeted goal development workshops with subject matter experts.

Additional Work

PSCC leaders participated in sustainability updates to the campus assemblies, as well as hosting the annual Sustainability Leadership Summit in December.

Notable projects completed by the PSCC focus teams this year include development of Renewable Energy Project Drivers by the Climate Team which will help guide development and selection of projects to supply or offset 100% of campus power, and finalization of the Sustainable Landscapes Trail by the Land Team.

Sustainability Awards

Cornell University Partners in Sustainability Awards 2018

The Cornell University Partners in Sustainability Awards (CUPSA) recognize individuals and teams who have exemplified the sustainability values of Cornell, made significant and notable contributions to the sustainable development and social equity of the Cornell campus, or displayed outstanding partnership for advancing sustainability within our campus and community.



Campus Organization

Cornell Thrift was started two years ago to provide an outlet year-round for Cornell students to pass on their unwanted clothing, electronics etc. and to avoid contributing to the waste stream. They were inspired by the concept of “free-piles” seen in university co-operative housing and the annual dump and run sale. Through initiatives such as Ezra Exchange Closets and mending and upcycling workshops, the team raises awareness amongst Cornell students about the unnecessary waste that each of us generate.

Campus Organization

The **Society for Natural Resources Conservation (SNRC)** combines collaboration and passion to raise awareness for and make positive impacts on the environment. Just a sampling of SNRC projects included implemented and are expanding TerraCycle collection bins across campus, hosting a Fall Creek Gorge trash clean-up, bag fee instituted at the Cornell Store, & started a social-media campaign around reusable mug use. SNRC collaborates with a diverse group of organizations to make the broadest and strongest impact possible.



Community Partners

In 2017, **Bikewalk Tompkins** hosted the 10th and 11th editions of Streets Alive! In May and December. Bikeshare has become an integral part of the Ithaca and Cornell communities and contributes to the mind shift that is needed in our mutual quests to become a carbon neutral community. **Ithaca Carshare** offers 24/7 self-serve access to fuel-efficient cars, a minivan, and a truck located in Ithaca. Cornell students, faculty and staff can easily become members of this program and enjoy the benefits of a car while saving money and contributing to a healthier planet.



Faculty & Staff

Dr. Jonathon Paul Schuldt, Communications Department engages students in sustainability issues from a communication perspective rather than a scientific one. As a member of the PSCC people team, Professor Schuldt helped create the sustainability literacy survey which has been an important tool and metric to gauge students growth in climate and sustainability literacy. **Sam Benson, RHD, Ecology House** is the Residence Hall Director of The Hurlburt Ecology House. Sam is deeply committed to the house mission, which is to introduce students to “... to begin to change the world...[and live] sustainably..”. She has arranged several campus groups (e.g. CSO, SNRC) to do workshops and hold discussions at the house pertaining to sustainability.

Students

Lauren Yeaman'18 is an Environmental and Sustainability Sciences major in the College of Agriculture and Life Sciences who was involved the Student Assembly Environmental Policy Committee, NatureRX, Waste Not, Engaged Cornell, & Climate Justice Cornell. Her motto "To eliminate the excess and thereby free up space... so I may invest in the things that give my life purpose." **Carli Fraccarolli '18** was the founder and current president of the Kappa Chapter of Epsilon Eta, a professional honors fraternity focused on sustainability. She founded the fraternity to bridge the gap between environmentalism and professionalism.

Staff Sustainability Champions

The **Staff Sustainability Champions** Program recognizes the unsung champions who make Cornell a sustainable campus and community. Champions have shown leadership and initiative to catalyze change for a more sustainable campus and planet with actions big and small.

The program is a collaboration between the Employee Assembly and the Campus Sustainability Office. Nominees receive an award at the sustainability summit and are featured in the Employee Assembly newsletter, on the Sustainable Campus blog and newsletter, and by the Career/Life Digest.



2018 Award Winners

Marianne Arcangeli

College of Human Ecology, Administrative Assistant & Student Services Representative

Marianne coordinated the Winter Blues and Greens cooking demonstrations for the College of Human Ecology's Green Ambassadors this year. The series of five demonstrations and tastings were offered to faculty, staff, and students of the College of Human Ecology. The demonstrations and tastings, held in the Department of Nutritional Science's cooking lab, focused on sustainable cooking practices and healthy eating. Participants learned healthy and sustainable cooking techniques and recipes. Marianne was responsible for finding the presenters, advertising the series, purchasing the food if requested, and supplying the attendees with the recipes, if requested.

Brian Hurley

Building Care, Facilities Management, Facilities and Campus Services

Brian Hurley was first identified as a sustainability champion in a 2013 nomination for the Cornell University Partners in Sustainability Award (CUPSA), and his efforts are going strong five years later! His team describes Brian as "... an individual who has made Sustainability a way of life. He is always looking for innovative ways we can recycle and re-use our resources available. He has contributed by creating awareness, and has continued to educate the staff, about why sustainability is so important. He engages everyone on sustainability and has become a catalyst for change by educating all why change is needed. His impact has become a reality for the staff and students, and we are all better off because of his commitment to sustainability. He often shares with others the many ideas he has on how we can be better at recycling our resources. He presented a report to Cornell on how they can improve on sustainability efforts here at Cornell. I know firsthand that we are all better off because of Brian's efforts.

Lanny Joyce

P.E., CEM, Director of Utilities & Energy Management, Facilities and Campus Services

Lanny and his team have done a tremendous job leading the campus with their engineering expertise in reducing the demand for energy use by Cornell's world-class educational and research facilities. Lanny has also been active in leading efforts to supply the campus with renewable, sustainable energy sources. Lanny led the creation of Cornell's innovative Energy Conservation Controls Team to continuously optimize and improve building energy system performance. Lanny has been a frequent presenter in classes and conferences, and tour guide for Cornell's energy plans and systems - including Lake Source Cooling (Lanny was Cornell's Project Manager), the combined heat and power plant (Lanny was Cornell's Project Director), energy conservation, energy management, high performance buildings, controls, and most recently present and future renewable energy systems and climate neutrality planning - to professional and civic organizations.

Peggy Stevens

Department of Biological and Environmental Engineering, Cornell University CALs Administrative Assistant

In 2013, Peggy's manager was inspired to take sustainable actions in the workplace after attending Cornell's Management Academy Sustainability Training and knew Peggy was the person to lead sustainability actions for their team. Peggy took on the challenge and has been a champion for sustainability ever since. It has become Peggy's mission to make the Department of Biological and Environmental Engineering (BEE) more sustainable in every way, through example and concrete projects.

Appendix A

2018 Detailed STARS Credits Report

Visit reports.aashe.org for Cornell's full, accessible data and report.



	Score	Change	Change Notes	How to Improve
CLIMATE & AIR	66.5%	3.2%		
GOVERNANCE & FINANCE	54.1%	1.6%		
Coordination & Planning	100.0%	3.1%	Credit weighting change	Cornell is consistently rated highly here
Investment & Finance	1.7%	-0.1%	Cornell is one of the lowest ranked institutions in this category	Committee on Investor Responsibility, public investment snapshots
CAMPUS	56.2%	7.7%		
Buildings	44.9%	11.8%	More green buildings counted	LEED for existing buildings
Energy	43.8%	1.5%	Added renewable energy to our portfolio	Continue to increase renewable energy power to campus
Food & Dining	28.8%	-1.4%	Credit weighting change reduced Cornell's "local" food count including Cornell dairy products.	Increase support for farmers cooperation for more of our food purchasing.
Grounds	70.0%	0.0%	No change	Update IPM / Sustainable Landscape Management Plan, begin SITES
Purchasing	67.7%	-3.5%	Reduction of total sustainable purchased goods per capita	Increase adoption of existing sustainable purchasing guidelines
Transportation	66.4%	0.0%	No change	Update transportation demand survey
Waste	47.6%	8.8%	Increased % of diverted waste from construction & demolition projects	Reduce overall waste
Water	79.3%	42.1%	Significant improvements to the Central Energy Plant	Develop stronger rainwater policy
COMMUNITY	73.3%	-3.5%		
Campus Engagement	90.6%	12.3%	More students counted in existing programs	Survey assessing sustainability literacy for all students
Public Engagement	85.9%	7.6%	More students counted in existing programs	
Diversity	94.7%	0.6%	No change	Increase staff and faculty participating in cultural competence activities
Wellbeing	39.4%	-18.6%	New credit added on % of lowest paid employees paid a local living wage	Reduce wage gap Pay workers a living wage
LIVING LAB	80.1%	7.1%		
Curriculum	76.2%	0.3%	Improved data collection increased the number of courses reported	Adopt sustainability learning outcomes for more students.
Research	88.9%	0.0%	No change	Develop an Open Access Policy for all Cornell research; encourage more faculty to research sustainability topics or mark research accordingly

Appendix B

New York Higher Ed Large Scale Renewable Energy Project Announcement

20 New York Universities Form Renewable Energy Purchasing Consortium

Ithaca, NY (August 14, 2018) --- Over 20 State University of New York (SUNY) and private NYS higher education institutions have joined together to form a consortium for developing and purchasing new, large scale renewable energy projects in New York State.

The New York Higher Ed Large Scale Renewable Energy Project seeks to lower financial barriers to renewable energy procurement through combined purchases. The consortium plans to consider large-scale solar photovoltaic, wind, hydroelectric and/or energy storage projects for development in New York State.

The consortium's stated vision is to "create positive change in our regional renewable energy market, advance partnerships between New York State higher education campuses, and help us advance our academic missions by powering our campuses in a manner that is financially viable, environmentally conscious and socially just."

All 16 campuses in the SUNY system, and the Cornell University's Ithaca campus, have committed to buying electricity from 100 percent zero-net-carbon sources. To reach this goal, the group identified a need to solicit new projects in the state. Potential benefits for members include lower costs for renewable energy procurement, mitigation against volatile gas prices, and new research opportunities for faculty, students, and researchers.

Sarah Zemanick, Director of the Campus Sustainability Office at Cornell University, one of the founding institutions of the consortium, said "As the land-grant university to New York state our commitment to sustainability begins on campus and extends beyond our boundaries."

"We are pleased to be a founding member of the consortium. Purchasing net-zero electricity brings our campus one step closer to meeting our carbon neutrality goals."

New York State's *Reforming the Energy Vision* plan aims to raise the renewable contribution of the state's grid to 50 percent by 2030. The initiative will accelerate renewable energy development and purchases to help meet the state goal.

The consortium aims to solicit projects ready for operation no later than 2020.