
Sustainability Update

Spring 2020



WHITMAN COLLEGE

Sustainability

In this Update

Produced by the Whitman College Office of Sustainability
Elissa Brown, Campus Sustainability Coordinator

The Office of Sustainability unites the efforts of faculty, staff, and students to promote leadership in sustainability. We recognize the impact our institution has on the environment and the college's responsibility as an institution of higher learning.

The Office of Sustainability works to harmonize our interaction with the natural environment through outreach, environmental stewardship, institutional advocacy, and the integration of sustainability into institutional policies, programs, and practices.

The Office of Sustainability serves as a resource to catalyze Whitman's environmental principles and commitments into action.

05

Whitman Earns STARS Silver

07

Whitman Signs the Carbon Commitment

09

LEED Certification Comes to Campus

11

Energy Consumption is Made Visible

13

Energy Efficiency Efforts Scale Up

15

Renewable Energy Production Expands

17

Students are Encouraged to Walk, Bike, & Bus

19

Electric Vehicles Charge Up

21

Grounds Goes Greener

23

Food To-Go with Zero Waste

25

Waste Continues to be Weighed



Whitman Earns STARS Silver



On March 24, 2020, Whitman College earned a STARS Silver rating in recognition of our sustainability achievements!

STARS, the Sustainability Tracking, Assessment & Rating System, measures and encourages sustainability in all aspects of higher education. STARS is a program of AASHE, The Association for the Advancement of Sustainability in Higher Education.

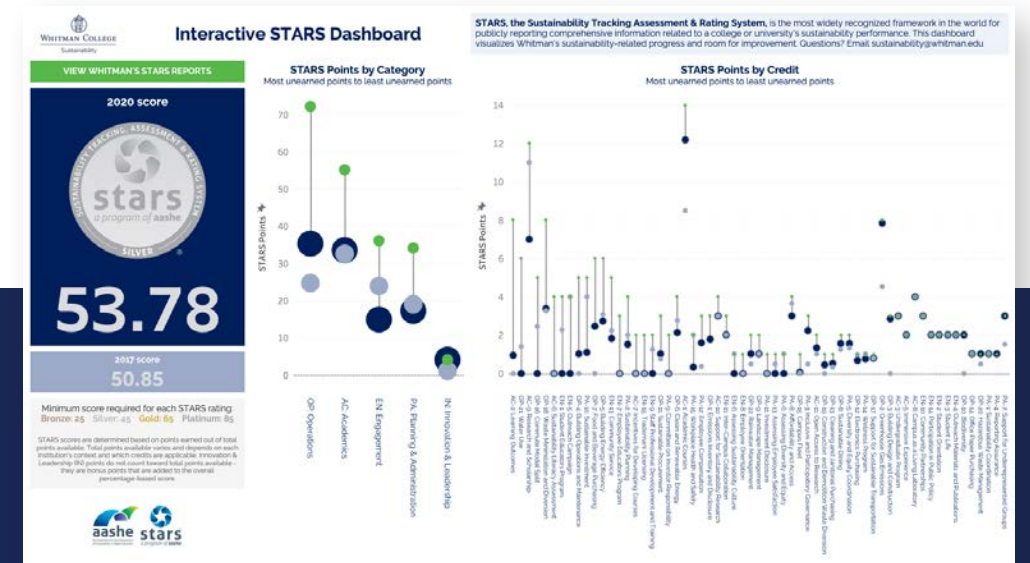
With more than 900 participants in 40 countries, AASHE's STARS program is the most widely recognized framework in the world for publicly reporting comprehensive information related to a college or university's sustainability performance.

Participants report achievements in five overall areas: Academics, Engagement, Operations, Planning & Administration, and Innovation & Leadership. 106 credits

structured within these areas cover most all facets of a higher education institution—from Academic Courses, Campus as a Living Laboratory, Community Partnerships, and Clean & Renewable Energy to Sustainable Investment, Support for Underrepresented Groups, and Workplace Health & Safety.

In 2017, Whitman achieved a STARS Silver rating with a score of **50.85** points. Ratings are valid for 3 years. This year, while reporting under a new version of the system that incorporates more rigorous data quality assurance, Whitman achieved an increased score of **53.78**.

Whitman's STARS report is publicly available online at whit.mn/STARS.



Explore an interactive dashboard with data on Whitman's STARS Report at whit.mn/SustainabilityViz



Whitman Signs the Carbon Commitment

On September 24, 2019, President Kathleen Murray affirmed Whitman College's dedication to taking action on climate change by signing the Carbon Commitment of the Presidents' Climate Leadership Commitments.

The Carbon Commitment has enabled higher education to "become the only sector in the US with a critical mass committed both to the scientifically necessary goal of carbon neutrality and to preparing students to develop the solutions for a just, healthy, and sustainable society," states Second Nature, the Commitment's supporting organization.

"I'm pleased to sign the Carbon Commitment, reaffirming the steps that Whitman has taken to reduce our carbon footprint. In doing so, I hope to encourage other institutions to take the same important steps that Whitman has taken to lessen our impact on the environment," said President Kathleen Murray.

By signing the Commitment, Whitman has joined a network of more than 300 colleges and universities who have also committed to carbon neutrality through the Presidents' Climate Leadership Commitments.

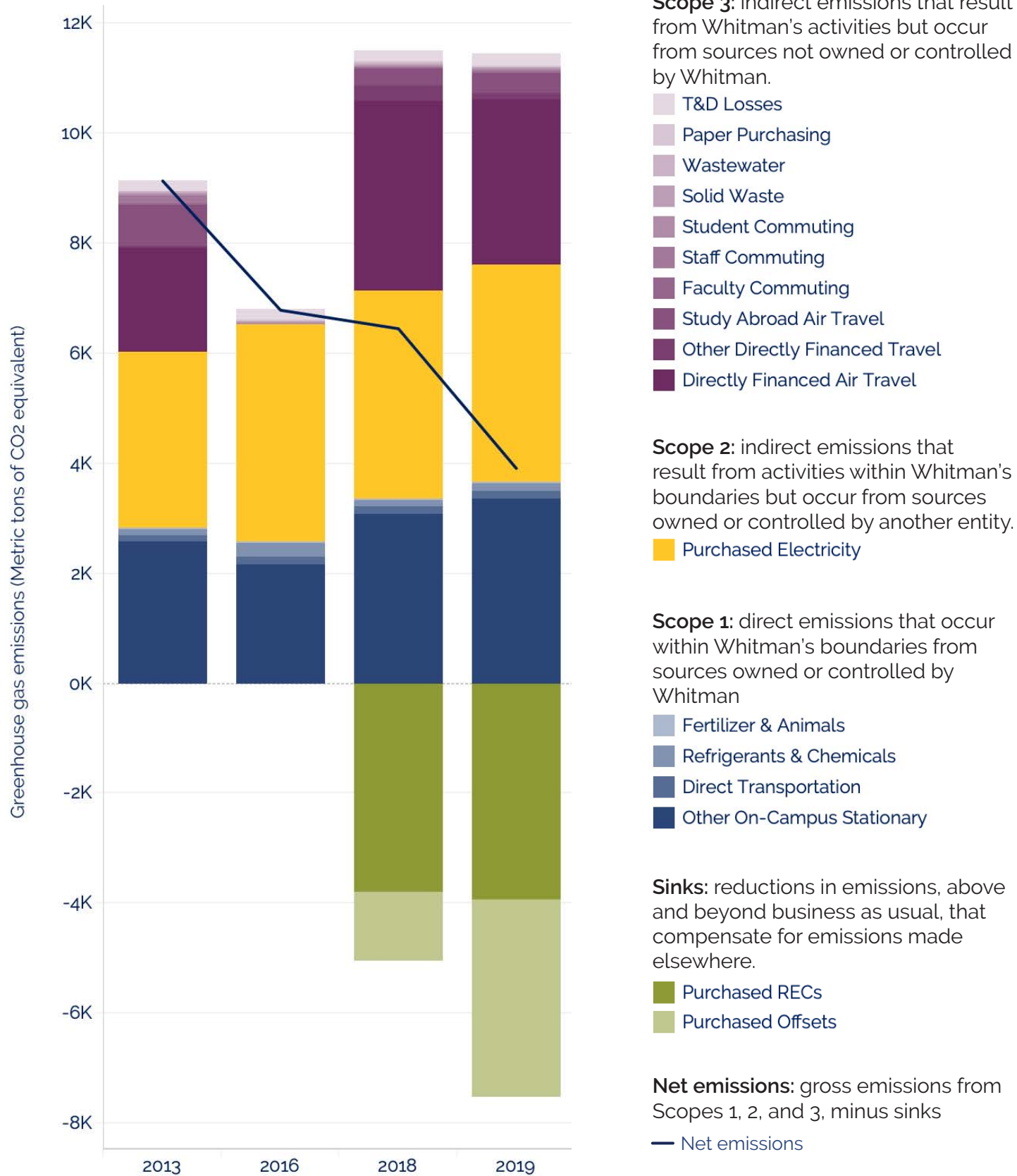
While this formal commitment is new to Whitman College, our dedication to the work required is not. In 2013, the College conducted its first greenhouse gas emissions inventory. In 2014, at the request of the Board of Trustees, a working group was formed to write a Climate Action Plan for the College. Adopted in 2016, our Climate Action Plan (CAP) establishes a roadmap for greenhouse

gas emissions reductions and sets a goal of achieving carbon neutrality no later than 2050.

Carbon neutrality is defined by Second Nature as "having no net greenhouse gas (GHG) emissions, to be achieved by either eliminating net GHG emissions, or by minimizing GHG emissions as much as possible, and using carbon offsets or other measures to mitigate the remaining emissions."

We are proud to have achieved one of our CAP's interim goals early: to offset electricity and natural gas emissions by 2020, cutting our net emissions approximately in half. Since 2016, we have purchased Renewable Energy Credits to cover 100% of the kilowatt-hours of electricity consumed on our campus. This year, for the first time, 50% were purchased from sources on our regional grid, directly supporting the growth of renewable energy infrastructure in our region. Starting in 2018, we also began purchasing carbon offsets to cover 100% of the carbon emissions from our consumption of natural gas.

We look forward to continuing to make progress toward carbon neutrality with renewed dedication through the Carbon Commitment.



▲ FY 2013 was the first year that Whitman conducted a greenhouse gas emissions inventory. FY 2016's inventory did not completely account for Scope 3 emissions. FY 2018 and 2019's inventories were completed during FY 2020 and are likely a more complete accounting of emissions, especially for travel. We will continue conducting inventories annually, as required by the Carbon Commitment. Full reporting can be found at secondnature.org.



LEED Certification Comes to Campus

Stanton Hall and Cleveland Commons achieved Leadership in Energy and Environmental Design (LEED) Platinum and Gold certifications.

In August 2018, 145 sophomores moved into Stanton Hall, the first new residence hall added to the Whitman campus in more than 45 years. In October 2018, Cleveland Commons opened as the vibrant new hub for dining on campus, fostering an expanded sense of community for Whitman students, faculty, staff, and Walla Walla community members alike.

ZGF Architects of Portland, Oregon designed Stanton Hall and Cleveland Commons to the specifications set forth by Whitman's Residence Life committee, which was informed by multiple studies of student needs. Throughout the process, the designs and construction were held to the highest possible standards of sustainability, utilizing sun shades, natural lighting and ventilation,

LED lights, water conservation measures, and other means to reduce energy consumption.

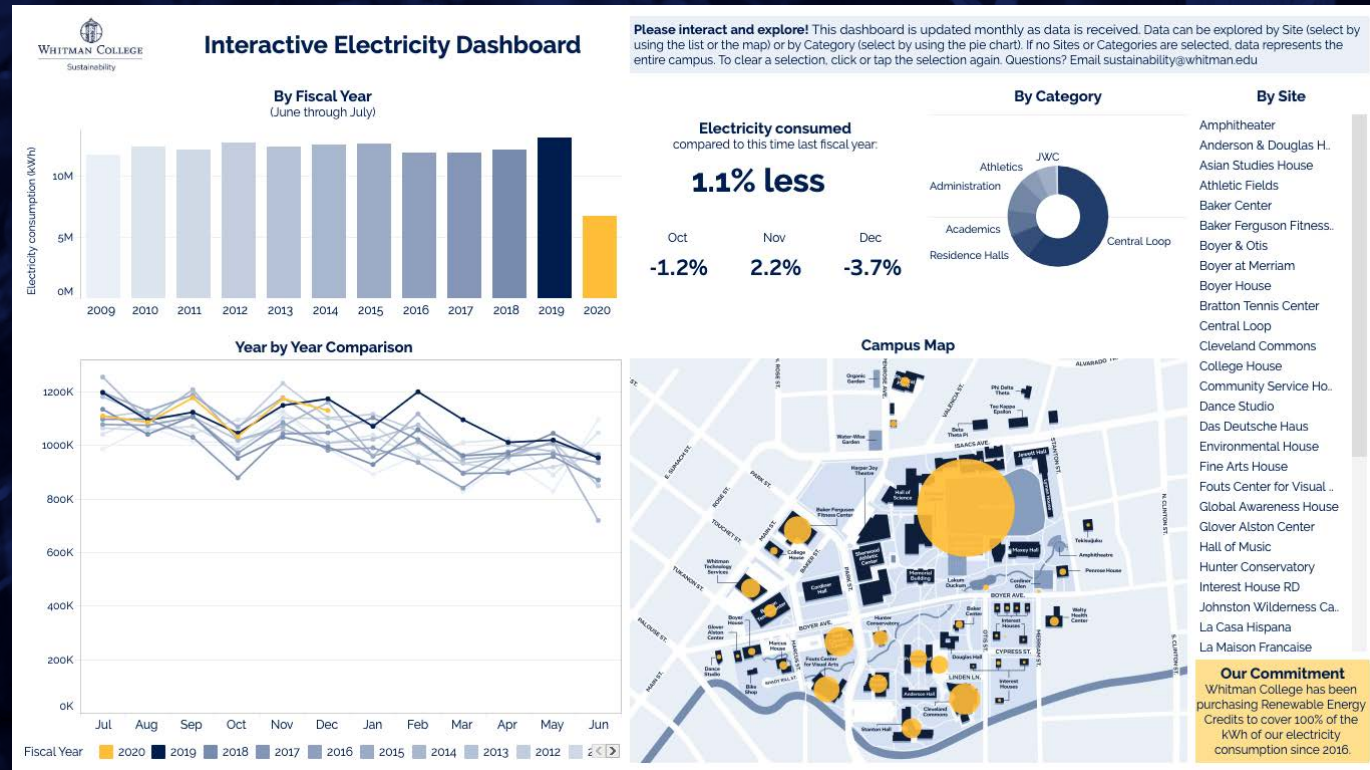
On September 30, 2019, Stanton Hall achieved Leadership in Energy and Environmental Design (LEED) Platinum certification from the U.S. Green Building Council - the highest level of certification. On October 15, 2019, Cleveland Commons achieved LEED Gold certification - outstanding for a commercial kitchen facility.

Sustainability is intended to remain at the heart of future phases of the Living at Whitman Initiative as the College seeks to expand housing options and the sense of community and connectedness for junior and senior students.



Stanton Hall, top, achieved LEED Platinum certification. Cleveland Commons, bottom, achieved LEED Gold certification.

Energy Consumption is Made Visible



Monthly utility data is now available for the Whitman community to explore through interactive online dashboards.

For over a decade, Whitman's utility data has existed in multiple spreadsheets kept by multiple departments. The numbers, hand-entered from monthly bills, have contained stories about our habits and our infrastructure that have remained, for the most part, untold.

The views of the dashboards captured on the opposite page represent electricity and natural gas consumption of the entire campus as of December 2019 (electricity, top) and January 2020 (natural gas, bottom).

Now, after a months-long effort to make sure all accounts were being accurately included, the data has been brought together and made accessible to our entire Whitman community. All data can be explored in one place with interactive online dashboards.

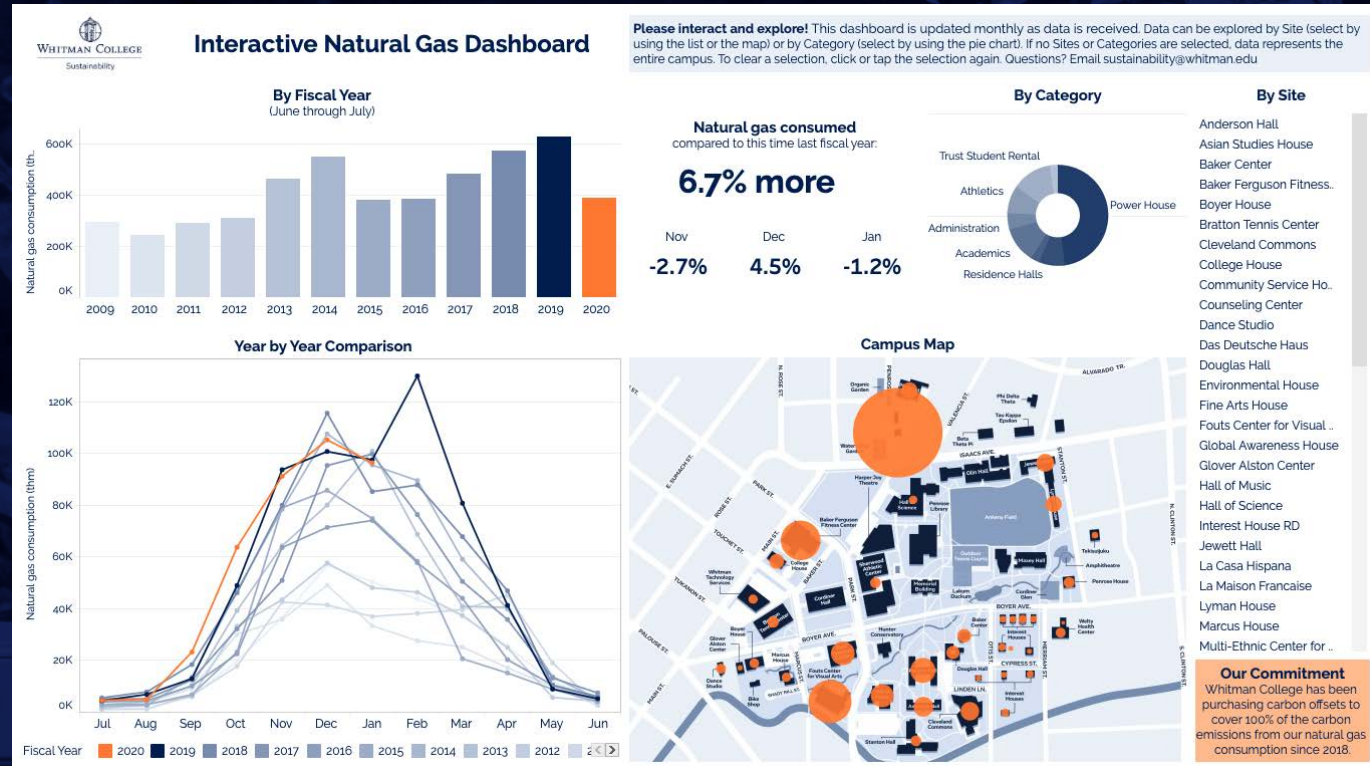
Looking at the current fiscal year compared to the previous fiscal year, as of December, 1.1% less electricity had been used. As of January, 6.7% more natural gas had been used.

With the construction of Stanton Hall and Cleveland Commons, between Fiscal Year 2018 and 2019, the College's total building square footage increased by 10%.

Between the same years, electricity consumption increased by 8%—slightly less than what would be expected with a linear relationship. Natural gas consumption increased by 9%, even as February 2019 saw a spike in natural gas used for heating, as Walla Walla faced its third coldest February on record. Average temperatures were 10.9 degrees below normal.

The dashboards are updated monthly as data is received via semi-automated reports from Pacific Power (electricity) and Cascade Natural Gas. Data can be filtered by Site or by Category. If no Sites or Categories are selected, data represents the entire campus.

The dashboards can be used as a decision-making tool and as a campus-as-laboratory learning opportunity. Students, faculty, or staff who would like access to the full dataset to use in teaching or research are encouraged to contact the Office of Sustainability.



◀ Explore these and other interactive dashboards at whit.mn/SustainabilityViz



Energy Efficiency Efforts Scale Up

Whitman is prioritizing LED lighting retrofits as the most cost-effective projects to immediately reduce our energy consumption and carbon footprint.

Throughout Summer and Fall 2019, Whitman continued our LED retrofit work, both in conjunction with lifecycle projects and as standalone projects. The Sherwood Athletic Center Varsity Gym, the Baker Ferguson Fitness Center Harvey Pool, and the Fouts Visual Arts Center gallery lights were converted to LEDs.

Maintenance and Residence Life staff are replacing burned out lamps across campus with LEDs, which is gradually advancing the campus-wide changeover.

In August 2019, we initiated work with Quantum Energy to conduct a lighting audit of campus and identify full-building LED retrofit projects that would yield the highest cost and energy savings. After Quantum Energy developed proposals for three buildings, we chose to move forward with a retrofit of Penrose Library as the first project.

The library was chosen first because it is a highly visible building that is central to many of our students' daily lives, the lighting system is on almost 24 hours a day/7 days a week, and the lighting system had ongoing maintenance issues that would be resolved through the retrofit.

Quantum Energy's installation work began in January 2020 and was finished by mid-February with minimal disruption to library operations. The lighting system's energy consumption has been cut by **55%**, for a reduction of 517,664 kWh of electricity and 363.89 metric tons of CO₂ equivalent in carbon emissions annually. Projected annual savings are **\$56,949**, considering both energy and maintenance reduction, and the project is expected to have a payback period of **2.83 years**. The net project cost, after a utility rebate of \$13,479.00, was \$169,816.54.

We will continue to pursue LED retrofits as our highest priority sustainability-related projects.

Other steps forward in energy efficiency this year included implementing a pilot of reducing building cooling hours in the summer, which was successful with little to no noticeable discomfort for building occupants, and turning off refrigerators and appliances in the Reid Market and Jewett Cafe when they were not being used in summer months.



◀ All lights in the Penrose Library were converted to LEDs, including those high up in the Allen Reading Room (top).



Renewable Energy Production Expands

The addition of solar arrays on Stanton Hall and Cleveland Commons increases Whitman's capacity to generate its own renewable energy.

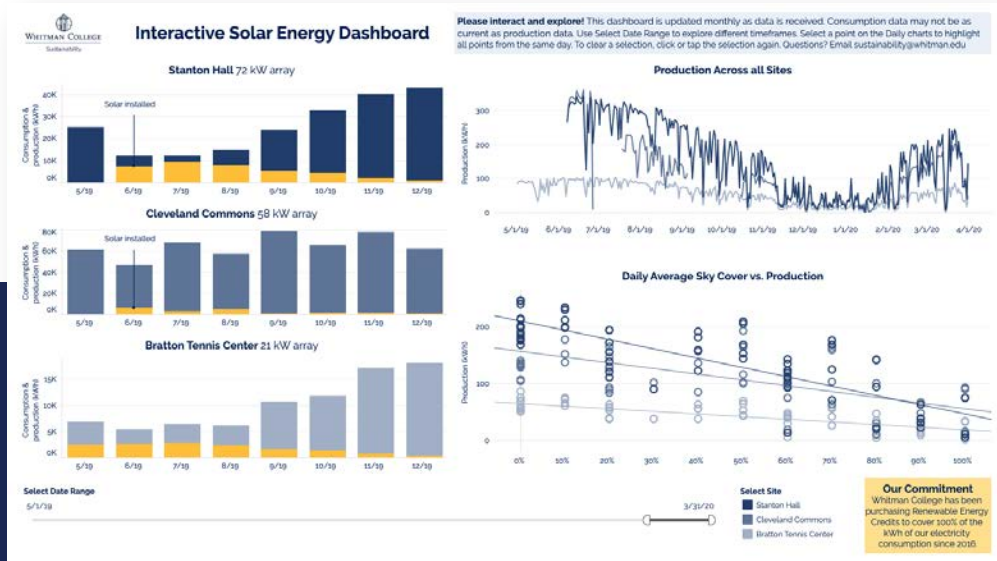
In 2009, Whitman installed our first commercial scale solar array on the roof of the Bratton Tennis Center - a 21 kW array. In June 2019, two new arrays were installed on campus - a 72 kW array on the roof of Stanton Hall and a 58 kW array on the roof of Cleveland Commons.

On a peak summer day shortly after installation (June 19, 2019), Whitman's total solar energy production was increased by about 700% with the addition of the Stanton and Cleveland solar arrays.

Solar energy still only powers a small proportion of electricity consumption on campus. For the six months following the

installation of the Stanton and Cleveland arrays (July - December 2019), solar energy powered 8% of the combined electricity consumption that occurred within Stanton, Cleveland, and Bratton Tennis.

While we aim to incorporate solar into all new construction on Whitman's campus, we recognize that eliminating electricity consumption through efficiency and behavior change is preferable to powering consumption from renewable sources. For this reason, and because the financial payback is faster by years, we are prioritizing energy efficiency initiatives, including LED lighting retrofits, over constructing additional solar arrays on existing campus buildings.



Explore an interactive dashboard with data on Whitman's solar energy at whit.mn/SustainabilityViz



Students are Encouraged to Walk, Bike, & Bus

Whitman is communicating to prospective and current students that a car is simply not needed to make the most out of life in Walla Walla.

Language was updated in the Family Welcome Packet to emphasize that Whitman offers many great options for student transportation, and that cars are not necessary for students:

“Whitman does not recommend students bring cars to campus. Most students find they don’t need them. Parking is also extremely limited. The good news is that campus is within walking distance to downtown, a grocery store, restaurants and coffee shops; the city offers affordable public transit and is bike- and pedestrian-friendly; the college offers a free bike share program and has an on-campus bike repair shop; there are ride-sharing services in town; and the college coordinates bus services to nearby airports, Seattle and Portland during academic breaks (see Getting Your Student Home). These options also line up with Whitman’s commitment to sustainability. For more information about transportation visit whitman.edu/transportation.”

The free bike share program mentioned above is the Whitman College Bike Share: a partnership between the Office of Sustainability and the Penrose Library. Students can check out a bicycle from the library circulation desk for a free 24-hour rental. Helmets and lights are also

provided. The Bike Share Assistant (a student employee) maintains the bikes and helps promote the program. For Fall 2019, we increased the fleet from **8 to 12** bicycles, and we improved preventative maintenance protocols to minimize the time bikes are out of commission when they require repairs.

Whitman College & Walla Walla Transportation Guide

Walla Walla is a pedestrian- and bike-friendly community. Whitman does not recommend students bring cars to campus, and most students find they don't need one! The city and the college provide many sustainable and inexpensive transportation options that make it easy for students and visitors to get to, from, and around Walla Walla. Let's go places! →

Transportation Map

- Route 1 Stop
- Route 4 Stop
- Grape Line Stop
- Bike Share
- Bike Shop
- EV Charging

Biking around Walla Walla
Walla Walla is a wonderful place to bike, and Whitman's campus is conveniently located right in the middle of it all. Enjoy quick commutes across the flatlands in town—a grocery store is just a two-minute ride from the heart of campus, and downtown is just a minute or two further. For a longer ride, cruise on the trail out to Bennington Lake, or go for a spin through the wheat fields. Anywhere in Walla Walla is bikeable—even the airport is just a twenty minute ride away. Looking for an outdoor adventure? The nearby Blue Mountains offer a playground for mountain bikers. For maps and more: wallawalla.org/things-to-do/cycling

Take the bus
Walla Walla Valley Transit provides local bus service, directly serving campus with Routes 1 & 4. The main transfer station is located at N 4th Ave & Main St. Cash fare is 50¢ for fixed routes, or pay with the Token Transit app. Most buses have a bike rack! Dial-A-Ride service is available for those who qualify. valleytransit.com

If you must drive, carpool
Find a ride or take Whites with you! Join and email rides@lists.whitman.edu

Get beyond Walla Walla
For fall and winter breaks (and spring, if enough demand), the Reid Campus Center coordinates Whitman Express Buses to/from Seattle and Portland. whitman.edu/whites

Grape Line is a private shuttle service between Walla Walla & Pasco. With advance reservations, shuttles stop at Whitman in front of Cordier Hall and the airport. grapevineus.com

Amtrak, Greyhound, and Ben Franklin Transit offer ground transportation from Pasco.

Accessible airports include Walla Walla (ALW), Pasco/Tri-Cities (PSC), Seattle-Tacoma/Sea-Tac (SEA), and Portland (PDX).

Keep Your Bike Safe
Always lock your bike properly. Register your bike with the City of Walla Walla by getting a bike license. If your bike is lost or stolen, please contact Whitman Security. Bikes abandoned on campus for over a year will be refurbished and sold by the Bike Shop.

Questions, comments, or want to get involved with sustainable transportation advocacy at Whitman? Contact with Whitman's Office of Sustainability at sustainability@whitman.edu

All incoming Whitman students were provided with a Transportation Guide in their Orientation packets.

Walla Walla is a wonderful place to bike, and Whitman's campus is conveniently located right in the middle of it all.



Electric Vehicles Charge Up

Whitman is looking toward a future with electric vehicles in the community and the College's fleet.

In the fall of 2018, Whitman installed our first electric vehicle charging stations: two SemaConnect chargers and one Tesla Destination charger - all considered Level 2 recharging stations.

Whitman community members and the public can use the charging stations. Utilization has been fairly low, though we are looking toward a future when electric vehicles will be more prevalent in Walla Walla.

The charging stations are primarily fed by power generated by solar panels on neighboring Stanton Hall.

In October 2019, Whitman received no-cost technical assistance in preparation to apply for a quarterly grant that would provide funding to install additional charging stations.

In December 2019, Whitman's Physical Plant purchased the College's first 100% electric fleet vehicle - a Polaris GEM eL XD. Maintenance staff are piloting the use of this vehicle, and it has been a successful fit.

By switching out a cargo van for a Polaris GEM, fueling costs will be reduced by about \$280 per year, and greenhouse gas emissions will be reduced by about 0.68 metric tons of CO₂ equivalent (MTCO₂E) per year with our current electricity source mix.

The 100% electric vehicle also requires less maintenance, provides improved site access, and is safer for pedestrians.

Our ambition is to replace all maintenance and grounds vehicles with EVs as replacements are needed and as is appropriate considering the work that the vehicles do.



◀ A rendering of Whitman's new 100% electric vehicle (top). Electric vehicle charging stations adjacent to Stanton Hall have parking spots reserved for their use (bottom).



Grounds Goes Greener

Whitman's grounds are benefiting from innovative approaches to vegetation management and irrigation.

In July 2019, 435 goats came to Walla Walla as the welcome guests of Whitman. The goats were hired to clear out the area around the athletic complex that had become overgrown over time.

Goats prefer to browse brushy and weedy species, so they are an effective way to clear invasive species and overgrown areas without using fossil fuel-powered machinery and herbicides. Using the goats also saved Grounds staff hours of arduous work that they could then instead spend on maintaining the main campus.

Grounds has begun transitioning to using battery-powered equipment. They currently have three battery-powered hand-held blowers, one battery-powered backpack blower, and one hand-held battery-powered tree trimming chain. Battery-powered equipment is given preference when purchasing replacements.

Throughout the central areas of campus, staff have been installing additional smart irrigation systems with improved meters that automatically shut off flow if excessive use is detected. Four new weather stations monitor wind, rain, and solar radiation to calculate evapotranspiration rates and direct the smart controllers to irrigate only when plants and turf require water.

Additionally, the City of Walla Walla has installed new meters, for both our grounds and our buildings, that transmit alarms when abnormal or continuous water use is detected. City staff notify Whitman staff who are then able to respond immediately.

At the same time that these smart systems are helping us to reduce our water use, they are also providing more accurate usage data than we have ever had before. Further analysis on water usage will allow us to make informed decisions and track progress.

◀ *Areas of Whitman's central campus are being irrigated more efficiently (left). Whitman used goats for vegetation management for the first time. The goats munched away two acres of overgrown brush near the athletic complex (right).*

Planning to take your meal with you?
Dishes do not leave Cleveland Commons.

ECO-TAKEOUTS™

Choose to use a reusable to-go container.
Enjoy your meal anywhere and eliminate waste.
Return your container to continue the cycle!

Questions?
Ask any Bon Appétit team member.

BON APPÉTIT
MANAGEMENT COMPANY
Food service for a sustainable future™

WHITMAN COLLEGE
Sustainability



Food To-Go with Zero Waste

Reusable containers at Cleveland Commons make enjoying a delicious meal anywhere on campus easy and waste-free.

In time for the start of Fall 2019, Bon Appétit partnered with the Office of Sustainability and Residence Life to launch an improved reusable to-go container program using Eco-Takeouts at Cleveland Commons. The program was initially launched during the previous academic year.

All students who lived within an on-campus residence or who were on a meal plan were given access to the program at no additional cost to them during Orientation.

When a diner requests an Eco-Takeout, they exchange a wallet-sized card as they receive their order. After enjoying their meal, they return the container to Cleveland at their convenience, and receive another card to keep until next time. The containers get washed and sanitized, and the cycle continues.

Any member of the Whitman community or the public can buy into the program for \$5, approximately the cost of one container. Single-use to-go containers are still available with a 30¢ charge for guests or others who do not want to participate.

Eco-Takeouts have helped shift the culture of how food is taken to-go at Cleveland Commons while saving tens of thousands of dollars that had been spent on reordering dishes that were not being returned.

This program was put on hold this spring due to COVID-19.

◀ Banners promoting the reusable container program flanked the doors at Cleveland Commons. The containers are durable and eliminate the waste of single-use containers.



Waste Continues to be Weighed

Whitman works toward ensuring that waste is treated as a resource.

Recycling markets have continued to be volatile since China's National Sword policy, enacted in January 2018, banned the import of materials for recycling processing, and other countries followed suit. US markets are beginning to respond to the opportunity to rebuild domestic recycling systems.

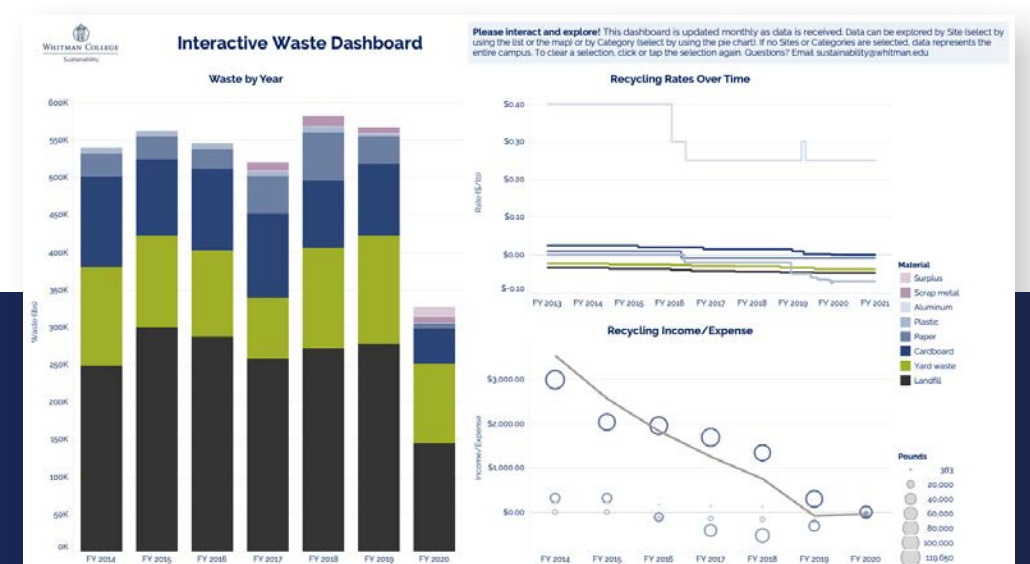
To ensure that Whitman's recycling streams remain as valuable as possible, we prioritized communication about how to recycle right. Throughout campus buildings, a first phase of waste bin and sign standardization was completed in Fall 2018. In Fall 2019, student recycling employees evaluated whether and where a second phase is necessary. Signs were added to all outdoor waste collection

stations to more clearly communicate what materials are recyclable and where they should go. RAs received training on how to recycle right in the residence halls, and all incoming students received information in their Orientation packets.

In Summer and Fall 2019, students affiliated with the ASWC Sustainability Committee led an effort, in partnership with the Office of Sustainability, to revisit how composting food waste could be feasible at Whitman. We continue to explore solutions, considering our regional context and our capacity to build our own infrastructure and operate our own program.

▲ Bales of cardboard are loaded for transport at the Recycling Center behind the Environmental House.

Explore an interactive dashboard with data on Whitman's waste at whit.mn/SustainabilityViz





WHITMAN COLLEGE

Sustainability

