Quinnipiac University Sustainability Implementation Committee (QUSIC) Report

WINTER 2022

Quinnipiac
UNIVERSITY

Our Charge

To position Quinnipiac as a model for sustainability, develop practices that promote a healthy regional ecosystem, and nurture current and future students, faculty and staff to embody sustainable practices in their personal and professional lives in a world increasingly influenced and threatened by environmental disruption.

Summary of Progress

In early March 2021, we began work on implementing the sustainability plan presented to the university from the Sustainability Planning Committee. This plan included a detailed framework for Quinnipiac to address sustainability in three areas: Learning, Living and Leading. Furthermore, the plan set forth a timeline for attainable goals, which included the following for the first three years:

Short-Term Goals (1-3 years):

1. **Conduct audits: curriculum, energy usage, water/waste/plastic**
2. **Pursue institutional membership**
3. **Initiate monitoring system/dashboard**

We therefore set about to establish this new phase of our sustainability efforts by welcoming the new committee members and dividing our attention between those three areas.

Strategic Directions

As the model for a sustainable University of the Future, Quinnipiac pursues sustainability in three areas: *Learning, Living* and *Leading.*

Learning

- **Vision**
  QU students, faculty, staff and alumni are agents of sustainability for the communities they engage and enrich locally and beyond.
- **Mission**
  QU promotes a culture where students gain and develop an understanding of environmental sustainability appropriate to their majors. Students learn about complex connections among natural environments, built infrastructure, and social and cultural institutions. Learning occurs within the curriculum and through engagement in co-curricular activities.

Living

- **Vision**
  In both physical presence and action, QU serves as a responsible steward of its natural resources and supports the long-term environmental sustainability of humanity on Earth.
- **Mission**
  QU community members live and engage in sustainable practices, which contribute to the creation of a more resilient and environmentally sustainable campus.

Leading

- **Vision**
  The presence of environmental sustainability in all pertinent practices is a hallmark of QU in the eyes of all stakeholders. External communication and internal execution of sustainable practices benefit from focused, continuous administrative support and executive-level interest.
- **Mission**
  QU supports sustainable practices institutionally. It creates the administrative structure needed to embed such practices throughout all pertinent facets of the university, and actively works to measure progress and communicate results.

Accomplishments

1. CONDUCT AUDITS (CURRICULUM, ENERGY USAGE, WATER/WASTE/PLASTIC, ETC.)

- Campus climate
  - Student Government Association will include in its year-end survey: four questions on student *perceptions* and *behavior* (partner: Nick Ciampanelli)
  - Student Organization Events in 2019 have been compiled and analyzed for events relating to environmental or sustainability issues (source: Vince Contrucci; analysis: Jessica Gibree)
- Facilities (source: Tom Negro; analysis: Gillian Sawyer)
  - Electric use
  - Water use
  - Trash/cardboard/recycling flows
- Operations (source: Peter DiDomenico; analysis: Gillian Sawyer)
  - Multifunction device usage (printing, copying, scanning, paper use)
- Grounds (source: Sarah Lawson)
  - Professor Sarah Lawson's biology students have been conducting censuses of insect life in the Pine Grove and around Clark's pond for several years; this summer, they plan to survey the quad, the Albert Schweitzer Institute and Sleeping Giant Park for baseline data that could be valuable in planning landscape changes that will benefit local and regional biodiversity.
- Curriculum (sources: Gillian Sawyer, Sam Edwards, 2014 Resonate survey)
  - Three new majors—with new courses in development:
    1. BA in Environmental Studies (co-major)
    2. BS in Environmental Science
    3. BA in Sustainability and Environmental Policy
  - Resonate survey of curriculum
  - Gillian Sawyer's scan of course catalog
  - Tally of course offerings from 2018 (Sam Edwards)
- Faculty research/teaching interest (sources: Maureen McCarthy, Andri Smith)
  - Gillian Sawyer and Jessica Gibree conducting and compiling faculty interviews with professors already working on sustainability
    1. Interviews to be shared on QU Sustainability website

2. PURSUE INSTITUTIONAL MEMBERSHIP

- Reviewed and evaluated six institutional memberships (five from the Sustainability Plan and one additional)
- Examined AASHE STARS—the Association to Advance Sustainability in Higher Education Sustainability Tracking, Assessment and Rating System—and determined possible areas of focus for initial steps
- Maintained membership in a voluntary, regional sustainability group of universities in the Greater New Haven County area
- Worked with the audit subcommittee to start data collection
- Informally consulted with sustainability in higher education experts

3. INITIATE MONITORING SYSTEM/DASHBOARD

- Landing page for Sustainability has been created and is now live at: **qu.edu/sustainability**
  - Central hub for all things related to sustainability with sections for:
    1. Sustainability plan document
    2. Vision and goals
    3. Information on sustainability-focused majors
       a. BA in Environmental Studies (co-major)
       b. BS in Environmental Science
       c. BA in Sustainability and Environmental Policy
    4. Our community in action
       a. Stories and articles
    5. Environmental justice
    6. Why act?
    7. Strategic directions
       a. Learning
       b. Living
       c. Leading
    8. Timelines
    9. Our approach
    10. Vision
- Discussed collaborating with Two Owls Sustainability Partners to create live usage data that can be monitored and displayed on the landing page
- Discussed AASHE STARS–recommended monitoring areas for the dashboard

4. INSTITUTIONAL COMMITMENTS

- Hired a full-time director of Environmental Health and Fire Safety as recommended in 2020 Sustainability Plan
- Hired a part-time sustainability fellow

Plans for Next Year

1. AUDITS

- Collect data on transportation on and off campus (shuttle usage and parking data)
- Collect data on QU-owned vehicles (facilities) and inquire as to replacement cycle and policy
- Begin audits of single-use plastics on campus
- Collect data on campus lighting—hours, direction, lumens (light pollution audit)
- Collect baseline data on grounds operations (chemicals used on lawns, value of plantings on an annual basis, hours spent on maintenance, percentage left uncultivated/planted to native species, etc.)
- Continue to identify curricular, co-curricular and extracurricular opportunities for engagement with sustainability and the environment (connect to Umbrella Themes for community engagement)
- Broaden survey of faculty research/teaching interests

2. PURSUE INSTITUTIONAL MEMBERSHIP

- Join **AASHE STARS**, if approved
- Identify areas of sustainability reporting for short, medium and long-term
- Continue collecting data for reporting and tracking
- Start reporting data
- Using STARS, prioritize sustainability efforts on campus (pick the low-hanging fruit first)
- Research grants and other funding opportunities
- Continue representation in regional sustainability in higher education meetings
- Have one to two people get trained in STARS reporting and tracking
- Use a "hub and spoke" method to identify key people in reporting areas of the university to collect STARS data from their areas (facilities, dining, academics, transportation, etc.)
- Have a representative of the university (possibly Community Relations) connect with Sustainable CT Kathleen Schomaker (kschomaker@hamden.com)

3. DASHBOARD

- Identify **AASHE STARS** recommendations and requirements for monitoring to provide direction for live reporting of data
- Start process of energy monitoring with Two Owls
    1. This can start small-scale with monitoring for one building and then expand
    2. Recreation and Wellness Center might be a great candidate
    3. Information goes to dashboard on landing page
    4. Determine cost and scalability
- Keep sustainability-related content flowing to landing page
- Determine best way to keep the page current

Recommendations

OVERALL

1. Provide financial support for the new Environment Studies program that will start next academic year. Support includes hiring faculty, providing laboratory space and providing materials necessary for research.
2. Foster efforts to establish a culture of sustainability on campus (e.g., develop a one-page sustainability document for new student orientation outlining recommendations to reduce waste and live more efficiently on campus)
3. Help clarify recycling rules for students by implementing the Recycle CT QR code stickers (see Appendix A for an example)
4. Create a long-term funding strategy for the sustainability efforts
5. Employ (paid) student sustainability interns
6. Pursue external funding for priority projects that align with **AASHE STARS** implementation. Gillian and Maureen have identified some potentially viable opportunities. These will be researched over the summer so that they can be pursued in the fall.
7. Showcase the Recreation and Wellness Center as the cornerstone of Living, Learning and Leading principles. Integrate students into the project as much as feasible.
8. Commit to the construction of all new campus buildings to at least LEED silver standards.

1. AUDITS

- Redo 2014 sustainability survey to better understand student perceptions and behavior
- Continue working with **AASHE STARS** criteria to identify and pursue additional benchmarking
- Pursue with functional areas on campus their use/purchase of single-use plastics (vending, food service, laboratory purchasing, office purchasing, contracts with external suppliers)
- Create "QU Sustainability" Instagram account to promote QU's efforts to internal and external audiences, contributing to increased awareness of historic, current and ongoing efforts on campus

2. PURSUE INSTITUTIONAL MEMBERSHIP

- The university should track and report its sustainability efforts through **AASHE STARS**
  - Use STARS to help guide implementation of sustainability at the university
- The university could start as a "reporter" with a free account and then upgrade to a paid membership ($1,525/year); the subcommittee will evaluate and recommend when it makes sense to upgrade the membership
- The university can join **AASHE** ($1,530/year for 10,000-14,999 FTE), which would provide other benefits and a discount on the STARS membership; the subcommittee will evaluate and recommend when it makes sense to join
- Work with the town of Hamden and **Sustainable CT** to jointly implement projects and to obtain outside funding

3. DASHBOARD

- The university should start the process of energy monitoring with Two Owls, starting with the Recreation and Wellness Center and expanding to other buildings (initial cost of $975-$5,225 for one building). See Appendix B for details on their proposal.
- Sustainability-related content should be prioritized through all university media channels and always be added to the sustainability landing page
- Deeper media projects should be considered, such as a student-created video series on the building of the Recreation and Wellness Center

Quinnipiac's new multipurpose Recreation and Wellness Center will become a beacon of both health and sustainability on campus. The facility is designed to address all student health and wellness needs in one place, while also advancing QU's sustainability goals, as the building will be LEED certified and constructed using sustainable materials

Summary

We are grateful to the Sustainability Planning Committee for its work that set the foundation for what we achieved this year. The pandemic and mid-semester start time have made it challenging to work toward these worthy goals, but we feel significant progress has been made in all areas. We are hopeful that the university will consider these recommendations, and we look forward to pursuing these goals together in the future.

The entire sustainability committee would like to give sincere thanks to our former co-chair, Kent Golden, for his service and the instrumental role he played in the development of this report.

Respectfully submitted,

Sam Edwards and Lauren McGregor on behalf of the Sustainability Implementation Committee

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Appendix A

Recycle CT QR Code (Dashboard)
Example:

Appendix B

360 OWL VISION

Cost Estimation Form: Quinnipiac University

KEY
Type
Drop Down Menu to Select
Automatically Filled
Automatically Calculated

Question 1: Please select the number of "Vendors" you would like to see displayed in your Dashboard. ***"Vendor"*** *is defined as a singular service provider. i.e., Waste Hauler, Energy Provider, etc.*		**Vendors**	**One-Time Fee**
		2	$ 550.00

Note: Refer to the "Measurable Metrics Menu" to review 400+ KPI's that can be tracked under each "Vendor" or "Category." "Vendor" can also be considered "KPI Category" such as energy, water, purchasing, waste, HR, etc.

Question 2: Are you interested in pulling additional years worth of historical data for your facility?	**Yes or No**	**# of Years (Historic Data)**	**One-Time Fee**
	Yes	1	$ 250.00

Question 3: Please select the number of updates you would like to see in your Dashboard per year.	**Vendors**	**# of Updates per Month**	**Periodic Update Fee**
	2	2 Updates/Year	$ 1,250.00

Question 4: If your facility is receiving 12 updates per year, please select the number of buildings on your Dashboard.	**# of Updates Per Month**	**# of Buildings on 360 Dash**	**Percentage**
	2 Updates/Year	1 - 3	N/A
			See 2nd Tab for Tiers

Question 5: Are you Interested in the LEED Arc Web Integration for your Base Facility?		**Yes or No**	**Annual Fee**
		No	$ -

TOTAL SAMPLE PRICING	**$ 2,050.00**	**Discount # Bldgs**	**Discount # Years**
One-Time Setup Fees	$ 800.00	See 2nd Tab for Tiers	See 2nd Tab for Tiers
Annual Fees	$ 1,250.00		
Volume Discount (See 2nd Tab for Volume Discount Tiers)	TBD		

Appendix C

Quinnipiac University Pricing Matrix

"KPI Category" examples are energy, waste, HR, Purchasing, etc. "Vendor" examples are actual providers

Set-Up Fees - 360 Owl Vision Sustainability Dashboard & EPSM (Energy Star Portfolio Manager)					
One-Time Fee (1 KPI Category/Vendor)	1	2	3	4	5
Set Up Fee	$375.00	$550.00	$675.00	$750.00	$800.00

Additional 12 Months of Historical Data/Vendor					
Answer	Yes	No			
Fee Per Historic KPI Category ($125/vendor)	$125.00	$0.00	*Example - 2 years of building electricity data*		

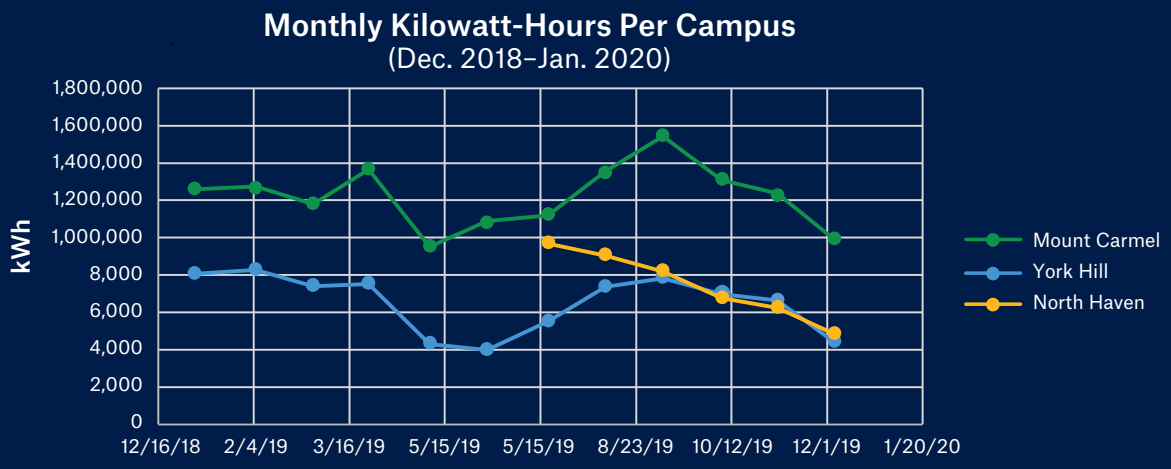
Periodic Update Fees - 360 Owl Vision Sustainability Dashboard Program					
Update Regularity (KPI Categories)	1	2	3	4	5
12 Updates/Year	$2,100.00	$2,500.00	$2,900.00	$3,300.00	$3,800.00
4 Updates/Year	$1,375.00	$1,675.00	$1,950.00	$2,250.00	$2,550.00
2 Updates/Year	$1,000.00	$1,250.00	$1,400.00	$1,600.00	$1,800.00
1 Update/Year	$600.00	$800.00	$800.00	$975.00	$975.00

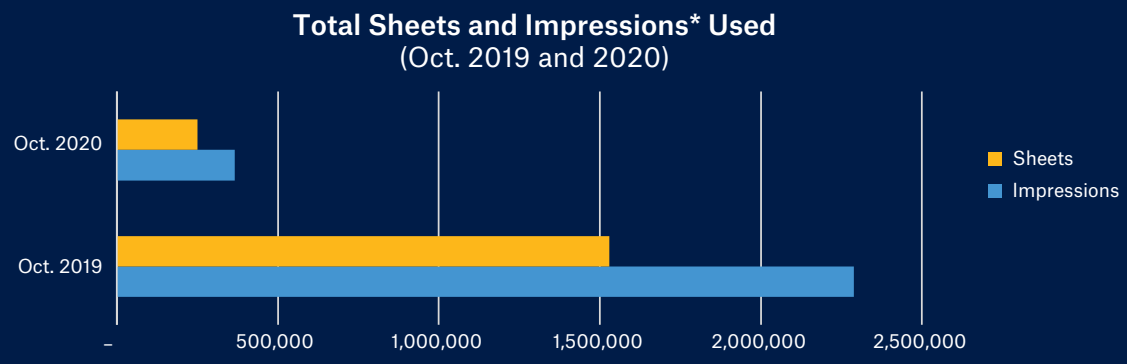
360 Owl Vision Sustainability Dashboard Web Application Access *Only applies to 12 Updates/Year*					
Update Regularity	**# of Buildings**	**% Discount**	**# of Years**	**Addn'l Discount**	
12 Updates/Year	1 - 3	0%	2	3%	
12 Updates/Year	4 - 10	2%	3	5%	
12 Updates/Year	11 - 19	5%			
12 Updates/Year	20 - 29	8%			
12 Updates/Year	30 - 39	10%			
12 Updates/Year	40+	15%			

Arc/LEED Integration					
Answer	Yes	No			
Fee	$750.00	$0.00			

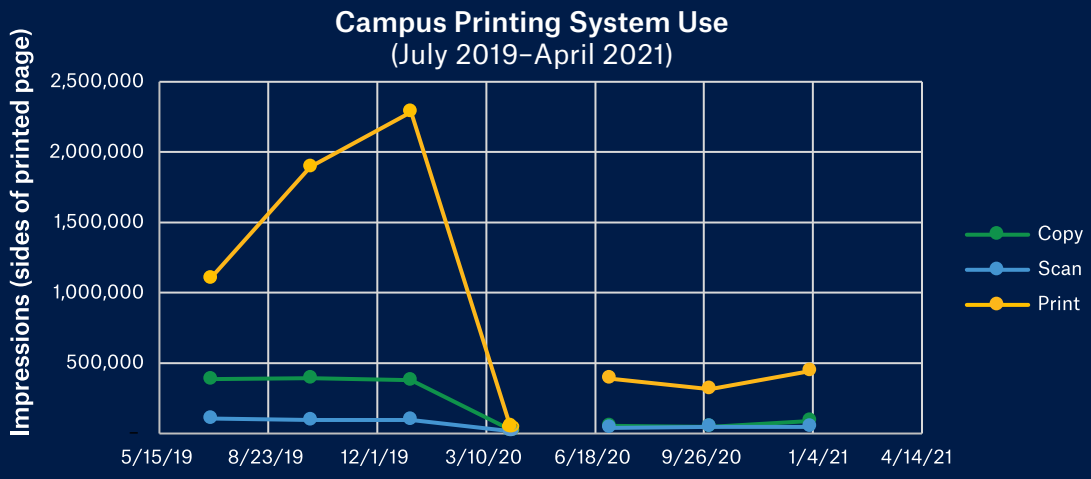
Cost Summary Options/Sample for:	1 Building Ex.	# Buildings	Subtotal (64)	15% Discount	Total
1 Building, 1 Annual Update, 1 KPI Category, No Historic Data	**$975.00**	**64**	$62,400.00	$9,360.00	***$53,040.00***
1 Building, 12 Annual Updates, 5+ KPI Categories, 1-Year Historic Data	**$5,225.00**	**64**	$334,400.00	$50,160.00	***$284,240.00***

Appendix D
Baseline Data (Audits)





This graph is a snapshot of printing levels before and during the COVID-19 pandemic.



Printing drops very low when COVID lockdown begins in March 2020.

** Impressions refers to the sides of printed pages; sheets are the number of sheets consumed.*

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