Joint Committee on Environmental Sustainability

2024 Climate Implementation Plan

UWL SUSTAINABILITY

UWL Climate Implementation Plan

Background

In 2019, the City of La Crosse Common Council passed a resolution that set a goal of reaching carbon neutrality community wide, by 2050. To achieve this goal, the city underwent a planning process to establish a Climate Action Plan. This process took 11 months and included engagement from community members and partners along with a 46-member planning team and consulting group "Pale Blue Dot". As a result of this process, a comprehensive Climate Action Plan was created for the City of La Crosse that was adopted unanimously by the City Council in January of 2023.

The University of Wisconsin-La Crosse (UWL) has a long history of promoting sustainability, both through the built environment and through the academic course work available to students. Following the approval of the Climate Action Plan, UWL moved swiftly to show support for this visionary plan, recognizing the leadership role the institution needs to play in its implementation. This was formalized when a letter of support of the Climate Action Plan was sent from UWL to Mayor Mitch Reynolds in June of 2023.

The Climate Action Plan outlines nine sectors; each sector has specific goals which are included as an addendum of this document:

- Transportation and Mobility; Land Use and Housing; Buildings and Energy; Waste Management; Water and Wastewater; Local Foods and Agriculture; Health and Safety; Greenspace, Trees, and Ecosystems; and Economy.

The UWL Joint Committee on Environmental Sustainability started in the Fall of 2023 on a process to show commitment to this plan. JCES analyzed current practices and formed a UWL-specific implementation plan that lays out the work that should be undertaken by the university over the next few years to make progress towards the goals of the La Crosse Climate Action Plan.

The 2024 Climate Implementation Plan serves as a campus guide on key strategic actions that will continue aligning UWL as a leader on sustainability. This document is not a comprehensive list of actions, but tries to boil down to the highest priority items that need institutional buy-in. Sustainability is dynamic and ever changing, and the university needs be laying the foundation to capture opportunities that will arise in the future. It will be vital to continue to look at institutional goals related to sustainability. This should include specific measurable outcomes, such as greenhouse gas reduction goals overall and for specific sources. The University should also consider signing a Second Nature commitment. Due to more robust institutional goals setting for sustainability, a more formal university climate action plan is recommended in the future.

UWL must go further in its role in developing informed citizens on issues of sustainability and climate change; educating students on sustainability and climate change is essential for a comprehensive public university. Doing so empowers future leaders with the knowledge and skills to tackle environmental challenges, fosters a sense of responsibility, and cultivates innovative solutions.

Catalytic Actions

The following actions were identified as key actions for UWL to take to fulfill its role as a sustainability leader. The following four actions include a brief background, as well as a list of goals from the La Crosse Climate Action Plan (LAX CAP) that are related to the action.

Action

> ***Prioritize funding to continue a 100% FTE allocation to a sustainability position. This job should be funded with a stable funding line (not grant/soft money funded), with some additional funding dedicated to student employment.***

JCES has shown overwhelming support for many years for this role, and since the creation of the Sustainability Program Manager position, there has been a clear acceleration in progress being made on campus. By allocating stable funding towards this role, the university will be laying the necessary groundwork to build upon previous successes and ensure continued progress. Without

a full time, dedicated role to sustainability at UWL, timely progression on the actions and goals outlined in this document would be in jeopardy.

- Related LAX CAP Goals: *Nearly All goals of the LAX CAP are related to the continued funding of a dedicated sustainability position.*

Action

> ***Prioritize funding for low hanging energy efficiency upgrades (LED Lights, HVAC, etc.) and explore opportunities for no cost or low-cost ways to reduce energy use, which could include leveraging temperature set points, or adjusting automatic shut off computers and lights. Achieve complete campus-wide LED conversion by the beginning of FY30. This should start immediately and continue to be worked on.***

While UWL has made progress in energy efficiency of campus facilities, which has equated to a roughly 20% reduction in BTU/Sq Ft between FY05-FY22 (Energy Use in State Facilities Report), there is high potential for additional advancements. Various buildings contain inefficient lighting such as fluorescent bulbs, or pneumatic HVAC systems. Funding these projects requires upfront capital costs, but also has a high return on investment. There are also other ways that do not require capital improvement, such as building temperature set points that should be leveraged to promote energy conservation.

- Related LAX CAP Goals: *BE1, BE2, BE 5, E1, E3*

Action

> ***By 2026 initiate a comprehensive utility master planning study that investigates energy efficiency opportunities and a pathway to decarbonization across the campus heating/cooling system.***

UWL greenhouse gas inventory shows that on campus combustion represents the largest portion of CO2e emissions from campus. UWL's heating plant emits roughly 15,000 metric tons of CO2e each year. Also, UWL's cooling system, run mainly through the West Campus Chiller plant, uses considerable electricity. Together the heating and cooling system on campus

represents a key obstacle to campus decarbonization. It is important to note that the electrical grid continues to decarbonize due to the economics of renewable energy. As such it is expected that the emissions from UWL's electricity use will decrease year after year, even if more electricity is used. However, the same cannot be said about the heating plant emissions, as the fuel source will not become cleaner, thus the emissions from the heating plant will continue to grow as a percent of the total campus carbon footprint. It is essential to build a decarbonization strategy, as the heating system is complicated and will require a thought-out process for decarbonization.

- Related LAX CAP Goals: *LH3, BE1, BE3, BE5, E1, E2, E3*

Action

Collaborate with other UW Campuses to procure renewable energy credits and offset at least 25% of the average yearly electrical usage with those renewable energy credits.

The carbon impact of UWL's electricity use is roughly 12,000 metric tons per year. Emissions from this sector have decreased since 2005, as the electrical grid has decarbonized. It is assumed that the pace of the grid decarbonization will accelerate moving forward due to the economics of renewable energy and federal incentives. Despite this, electricity will continue to be key pillar of UWL's carbon footprint, and investment in offsite renewable energy is a core strategy for CO2e reduction at scale. It is important to note that onsite renewable energy is a strategy that should also be advanced at UWL, but there is not enough generating capacity to cover electrical needs. Investment in offsite renewable energy can provide additional economic benefit, and further accelerate renewable adoption. By working with other UW campuses through a renewable procurement method such as a virtual power purchase agreement (VPPA), UWL can access better financial options.

- Related LAX CAP Goals: *BE1, BE4, BE5,*

The above actions are viewed as catalysts for key progress in UWL's sustainability journey. These are the highest priority items determined by JCES. Additional actions were created that are priorities and ensure that UWL's climate action is holistic in its approach.

1. *Involve the Sustainability Coordinator in the next dining contract process to ensure the sustainability implications of dining are considered when considering the selected contractor for dining service.*
    - Related LAX CAP Goals: *LF1, LF2, LF 3, E1, E2, E3, WM1, WM2*
2. *Institute a cap the total parking count at the current count. This number should reflect the addition of the CFA Parking Ramp but not any lots identified as being temporary (i.e. R-8).*
    - Related LAX CAP Goals: *TM1, TM2, TM5, LH1, LH2, LH3, LH4, W3, GS1, GS3*
3. Initiate a *Transportation Demand Management plan that provides a comprehensive strategy for campus commuting with a main goal of reducing emissions from campus community commuting.*
    - Related LAX CAP Goals: *TM1, TM2, TM5, LH1, LH2, LH3, LH4, W3, GS1, GS3*
4. *Explore opportunities to collaborate with the City of La Crosse to expand street lighting in areas of high density of student rentals to promote safety and remove barriers to active transportation to campus.*
    - Related LAX CAP Goals: *TM1, TM2, TM5*
5. *Expand the offering of secure bike parking, this should include an enclosed bike shelter at one of the residence halls or a room inside of a residence hall and an expansion of the sheltered bike parking in the parking ramps.*
    - Related LAX CAP Goals: *TM1, TM5*
6. *Pilot organic lawn care on a parcel of current turf to begin to understand the benefits and challenges that come along with the change in care. This pilot should be greater than 1000 sq ft. Following a pilot organic lawn care program, UWL Facilities Management and Sustainability should explore opportunities to expand organic lawn care practices to*

the larger portions of landscapes on campus and consider opportunities to gain certifications as a Bee Friendly Campus or Green Grounds Certified.

- Related LAX CAP Goals: *GS 2*

7. *Accelerate adoption of EVs and PHEV for campus use. An internal policy could be considered that dictates that all new vehicle purchases should be electric, unless there is not an EV (Electric Vehicle) that is suitable and available for purchase or if the lifetime cost is 10% greater than an ICE equivalent.*
    - Related LAX CAP Goals: *TM3, TM8, E2*
8. *Dedicate resources to implementing "transitional landscapes" outlined in the 2019 Campus Master Plan Update to restore habitat for non-human species. Native prairie landscaping and pollinator gardens are examples of preferred uses for these spaces.*
    - Related LAX CAP Goals: *LH3, LH4, W1, W3, G2, E2, E3*

The above list is not a comprehensive list of goals and objectives needed for continued leadership. The JCES has created additional actions for exploration, which can be found in the 2023-24 JCES Annual Report. These additional actions have a higher specificity than those that are listed above and the core implementation agent for those actions are either the members of JCES or UWL Sustainability. Those actions listed above are identified as highly collaborative with various stakeholders and reflect changes or further investment in UWL's Sustainability strategy.

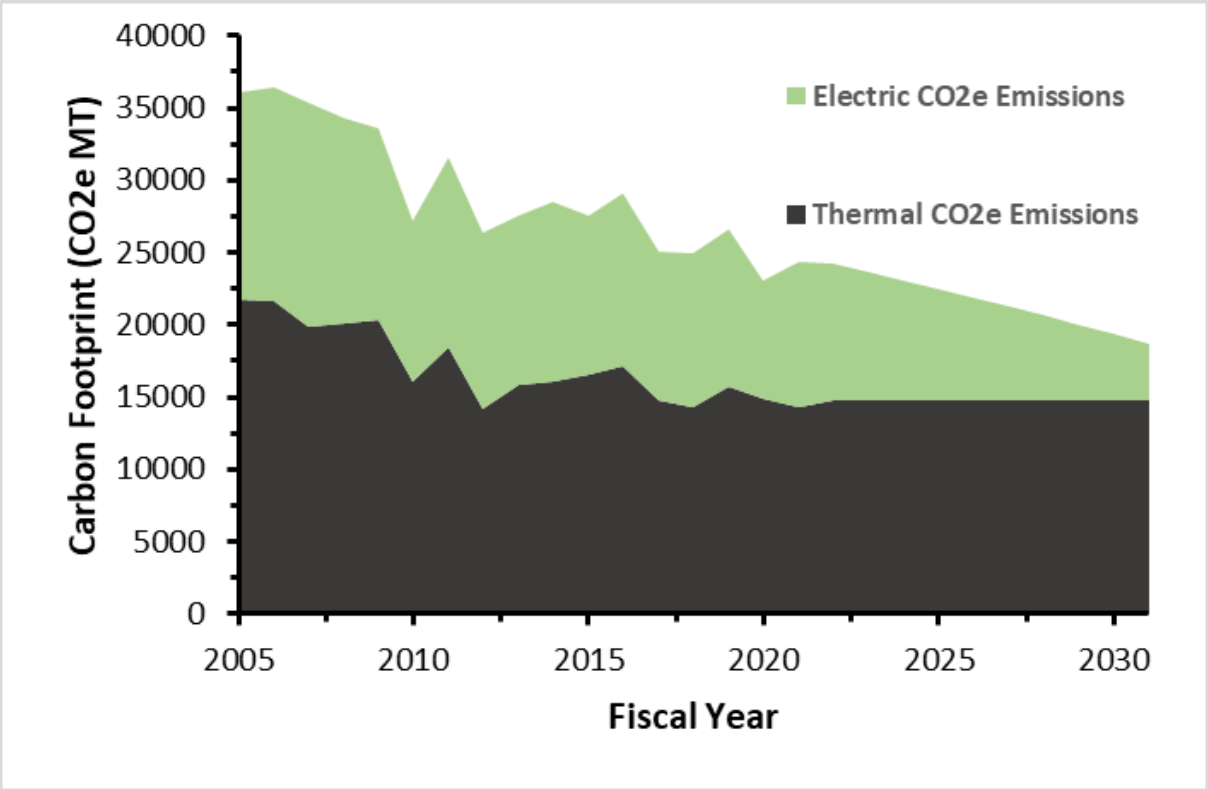
Addendum

City of La Crosse Climate Action Plan Goals (goals directly related to Municipal Operations have been omitted).

- Transportation and Mobility
  - TM 1: Decrease commuter and community wide vehicle miles of travel (VMT) by 5% by 2030.
  - TM 2: Increase public transit access and commuter ridership from 1.6% to 3% by 2030 (represents an 88% increase in the number of commuters using public transit over 2019 baseline).
  - TM 3: Increase battery electric vehicle (BEV) utilization to 20% of community-wide rolling stock by 2030
  - (From approximately 77 vehicles to 11,800 vehicles community-wide).
  - TM 4: Establish viable bio and/or renewable diesel sources to serve the community by 2025. Achieve 25% community-wide diesel consumption replacement with bio and/or renewable diesel by 2030.
  - TM 5: Improve the comfort and safety of walking and biking within La Crosse.
  - TM 8: Reduce community-wide off-road and lawn equipment annual emissions.
- Land Use and Housing
  - LH 1: Increase the number of housing units within the current city limits by 5% by 2030.
  - LH 2: Increase community resilience to increased flooding and flash flooding caused by Climate Change.
  - LH 3: Update community plans, zoning, and design standards to increase housing and community resilience to the impacts of climate change, including flooding and extreme temperatures.
  - LH 4: Update community plans, zoning, and design standards to mitigate heat island impacts, particularly for populations most vulnerable.
  - LH 5: Reduce the share of population living in high energy poverty from 16.4% to 11.4% by 2030.
- Buildings and Energy

    - BE 1: Reduce community-wide residential, commercial, educational, and industrial building energy consumption by 15% by 2030 (electricity and natural gas).
    - BE 2: Increase adoption of Net Zero construction community-wide to 10% of new residential and commercial construction annually by 2030 (estimated at 13 net zero homes and 8 net zero commercial buildings annually).
    - BE 3: Achieve 10% residential and commercial and industrial building "fuel switching" from on-site fossil fuel combustion to electrification by 2030.
    - BE 4: Increase renewable energy from 0.24% to 5% of community wide residential and commercial electric use by 2030.
    - BE 5: Increase resilience of community wide building stock to the impacts of climate change.
- Water and Wastewater
    - W 1: Promote increased water conservation community-wide with a targeted reduction of 6.5% by 2030 (202 million gallons conserved annually by 2030).
    - W 2: Reduce wastewater generation community-wide with a targeted reduction of 5% by 2030 (180 million gallons reduced annually by 2030).
    - W 3: Improve the resilience of the community's water, wastewater, and stormwater infrastructure to flooding, particularly in high-risk areas.
- Local Foods and Agriculture
    - LF 1: Increase the production of and access to local food, particularly serving low-income and food insecure individuals.
    - LF 2: Reduce food waste and hunger, achieve a 50% reduction in food insecurity community-wide by 2030.
    - LF 3: Protect and preserve agricultural land while increasing its resilience to climate shocks.
- Greenspace, Trees, and Ecosystem
    - GS 1: Increase community-wide tree cover from 30% to 32.5% by 2030 and 35% by 2040 (350 acres added by 2030, 700 acres added by 2040).
    - GS 2: Increase pollinator supportiveness of lawns and grasslands in the community and achieve a 5% turf replacement with native grasses and wildflowers by 2030 (175 acres reduced by 2030).

    - GS 3: Reduce community-wide “dark” impervious surface coverage from 26.4% to 8% by 2030 and 5% by 2040 (280 acres reduced by 2030, 700 acres reduced by 2040).
- Economy
    - E 1: Capture local economic potential of climate action.
    - E 2: Support the development of the community’s workforce to be well-positioned to pivot towards the shifting needs and new opportunities of the Climate Economy.
    - E 3: Support/incentivize local businesses and agricultural operations in building marketplace climate resilience.
- Waste Management
    - WM 1: Decrease total per capita municipal solid waste handled by 5% or more by 2030 (3,360 tons or more annually).
    - WM 2: Achieve 50% organics landfill waste diversion, including food waste reduction, by 2030 (11% of total municipal solid waste [MSW (Municipal Solid Waste)], approximately 7,400 tons).
    - WM 3: Increase recycling from 12.8% to 20% of total MSW handled by 2030 (from 8,590 tons to 12,600 tons diverted. Calculation assumes achieving strategy WM 1).
    - WM 4: Increase diversion of reusable materials by 15% by 2030 (decreasing from 18.9% of community mixed waste to 16%).



UWL Emissions from electricity use and thermal energy (heating plant) from FY05 to FY22 and projected out to FY30. Data is taken from the Wisconsin State Energy Reports. Projected reduction in electric CO2e emissions takes into account a reduction in carbon intensity in grid (CO2 produced for each unit of energy) Reduction in grid carbon intensity calculated using Xcel Energy 2030 goals. This calculation also considers a year-after-year increase in electricity usage.