

# Climate Action Planning Analysis Worksheet: Weber State University (WSU)

## A) Summary and Main Takeaways:

**Main Plan:** It is very notable that WSU's CAP is centered around their carbon neutrality goal. Milestone goals are also stated to set intermediate CO2 reduction targets and combine those with action items. Additionally, with the mention of a **paradigm shift** being essential to a more complete understanding of why emission reductions are necessary, they demonstrate a commitment to furthering climate literacy and mindset/behavioral changes that extend beyond the WSU campus. Because the plan is about 12 years old, it is difficult to tell how effective the plan may have been at the time and if there has been any follow-through. This plan is very goal and strategy-oriented as compared to more data-driven or empirical plans.

CH: maybe less on community engagement, a lot on mitigation strategies

KB: plans for public/private partnerships

**Progress Report:** The progress report discusses both successes and failures using both "relative and absolute metrics" (1). The goal to reach carbon neutrality by 2050 has remained constant since the main plan was published. WSU includes a leadership statement that acknowledges that sound business decisions and long-term sustainability are not mutually exclusive, demonstrating a commitment to a cost-effective approach to climate resiliency. The report includes sections on Awards and Accomplishments, Greenhouse Gas (GHG) Emissions (Scope 1, 2, 3), Energy Consumption and Conservation, Additional Sustainability Projects & Programs, and Contact Information. GHG emission graphs overlay actual reported emissions and the target emissions. The report addresses some efficiency projects and their current construction statuses (design, ongoing, in progress, complete). Under the section titled Behavior Change and Education, the Green Department Program promotes sustainability practices with a department certification, with which they can later earn money for maintaining and completing action items. The Environmental Ambassadors are students who are in charge of implementing sustainability-related projects.

## B) Potential Interviewing Questions and Curiosities:

- Are there any other documents available, such as progress reports or plan updates (other than FY 2016)?
- Were any students involved in the planning process, or was it primarily the University President's Council who established the CAP?
- Have recent sustainability efforts on campus been expanded beyond the focus of reducing CO2 emissions?

- From KB: what is the legacy of being an early innovator in red state sustainability? benefits/costs?

## C) Analysis Questions:

### 1. Does the CAP include information on creating a baseline?

*Does the plan discuss its baseline? In other words, does the plan reference its natural greenhouse gas emissions (GHG) levels used to inform planning, goal-setting, and climate policy structure? There are several possibilities for setting a baseline. Some plans may focus on a single historical emissions level, while others may reference future baseline projections.*

- “Acknowledging this threat, the ACUPCC signatories, of which Weber State University is one, have made a pledge to reduce greenhouse gas emissions until a state of carbon neutrality is achieved for each signatory institution.” (4)
- “In order to determine the effectiveness of the greenhouse gas emissions reduction program, a data baseline must be determined. An inventory of greenhouse gas emitters will be prepared and an analysis conducted to determine the amount of greenhouse gasses being emitted from each source at the starting point for reductions.” (8)
- “Because the university does not have every individual facility metered for every utility, total consumption data has been aggregated and will be addressed for the university as a whole to establish an energy consumption and carbon emissions data baseline” (9)
- “Table 2. Natural Gas Consumption by Metering Point (FY07)” (10)
- “Table 3, Heat Plant Diesel Fuel Consumption” (11)
- “Table 4, Generator Fuel Consumption for 2007” (12)
- “Table 5. University Motor Vehicle Fuel Consumption” (14)
- “Table 7 - Electricity Used and Equivalent CO<sub>2</sub> Produced 2007” (16)
- “Table 8. Total Direct Energy Consumption and Carbon Emissions CY 2007” (17)

### Progress Report:

- “From the baseline year of 2007, WSU has reduced its electricity consumption by 26% and its natural gas consumption by over 25% thanks to the completion of several key energy efficiency and renewable energy projects.” (12)

**Summary:** The CAP sets the goal for the university to become carbon neutral, defines the term, and explains why it is a necessary goal. Scope 1 emissions include: central heat plant, stand-alone building heating systems, emergency power generators, University vehicle fleet, fugitive emissions, and other equipment emissions. Scope 2 emissions include: purchased utilities. Scope 3 emissions include University-sponsored air travel, vehicle travel, and commuter travel. The progress report references 2007 as the baseline.

## 2. By what measure is success tracked and reported?

*Does this plan discuss how progress is tracked and reported? Does the plan reference a system that assesses its sustainability performance? Many different approaches can be used, but make sure to take note of STARS and AASHE.*

- “This climate action plan, emissions inventory, and progress reports will be made available publicly through the WSU Library, will be posted on the WSU web site, and will be provided to the Association for the Advancement of Sustainability in Higher Education (AASHE) for posting and dissemination” (6)
- “An annual update report that includes action items completed, updated emissions inventory data, and a progress report narrative will be generated and posted for each subsequent year within nine months of the calendar year end” (6).
- “An annual report will be provided to the President’s Council, Student Senate and to the Faculty Senate at WSU. This report will identify energy consumption data, energy use trends, and other initiatives or actions taken in the preceding year to reduce carbon emissions.” (34)
- “This plan and all associated plans will be reviewed and updated on an annual basis” (34).
- “This demographic survey will need to be maintained and updated on a regular basis by surveys or other analysis to assess and compute the vehicle miles driven in future years” (17)
- “Besides the annual report to the President’s Council and the Student and Faculty Senate, an annual report will be provided to AASHE in their prescribed format” (34)

### **Progress Report:**

- “This report contains updated emissions numbers using the latest version (v 9.0) of the Clean Air- Cool Planet Campus Carbon Calculator. With each version, Clean Air-Cool Planet updates emissions factors used to calculate carbon emissions.

Therefore, there will be some discrepancies when comparing the numbers in this report to the reports of previous fiscal years.” (4)

**Summary:** In order to keep track of the CAP’s success, the university plans to write an annual update report detailing energy consumption, energy use, and progress toward mitigation initiatives. The report will be given to the President’s Council, Student and Faculty Senate, and AASHE, as well as to the public through the university website and library.

### 3. Does the CAP set goals, strategies, or action items for implementation?

*Does the plan address potential next steps for the plan to be carried out? Take note if plans mention tracking progress or improvements. Does the plan provide recommendations, contain reduction and mitigation strategies, or set interim goals to ensure implementation?*

- The long term goal is to achieve carbon neutrality by 2050, but to encourage and facilitate achieving that goal, several intermediate milestone goals have been established. The first intermediate goal is to achieve a 40 percent reduction in carbon dioxide emissions from the baseline year by 2012. Another 30 percent reduction will be obtained by the year 2022. An additional 20 percent reduction from baseline year will be achieved by the year 2035, and the final 10 percent reduction to zero net emissions will be achieved by 2050 (5).
- “It is recognized that achieving carbon neutrality will require a significant investment in facilities, infrastructure, vehicles and equipment as well as a major paradigm shift among the faculty, staff and students at Weber State University in attitudes and understanding about the effect and mitigating opportunities of greenhouse gas emissions...[this] can be achieved through extensive education programs” (7)
- “The GEOG 3050, Weather and Climate class, where students monitor their own greenhouse gas emissions (gasoline, electricity and natural gas consumption converted to CO2 equivalent), and then try to reduce them” (33)
- “A small fleet of these [coach] busses should be maintained since they are more economical to operate and generate less carbon emissions per passenger mile than does air travel or other methods of transportation for medium range distances” (13)
- “When a natural gas refuelling station is installed, all of the [campus service] vehicles in this fleet should be converted to natural gas fuel. This conversion would reduce

- annual operating costs, because of the lower price of natural gas fuel, and would also reduce carbon emissions because natural gas burns cleaner than gasoline” (13-14)
- “The goal of this initiative will be to implement an energy savings performance contract, including having all construction and equipment installation complete, by the end of calendar year 2010” (20)
  - “The goal is to develop and implement a policy prohibiting purchase and use of small space heaters for use in university facilities, and to have all space heaters removed by July 2010” (20)
  - “The goal is to develop and implement a policy allowing only purchase of “Energy Star” rated equipment for renovation, retrofit, or new construction of Weber State University facilities, furnishing, fixtures, and equipment by the end of calendar year 2010” (20)
  - “The goal is to establish and implement a policy whereby all new University facilities must meet LEED Silver certification requirements, whether or not a certificate is sought. This policy should be published before the end of 2010” (21)
  - “Facilities Management will monitor electrical consumption and make recommendations to the President’s Council on when additional blocks of wind power should be acquired” (22)
  - “These issues should be aggressively resolved and car pool and alternatively fueled vehicle parking should be implemented as soon as possible” (23-24)

**Summary:** Many subpoints of the Mitigation Strategies section references 2010 as a goal for policy implementation. Mitigation strategies include policy initiatives, physical plant initiatives, university operations initiatives, and human behavioral change initiatives.

#### 4. How is the CAP funded?

*Does the plan discuss funding efforts? In particular, where do sources of funding come from? Are these sources public or private entities?*

- “Funding will be sought first from sources outside the University, such as federal, state or private foundation grants, to the maximum extent possible. Funding will also be sought through regular state funding mechanisms wherever possible. Charging students, either through tuition or fee increases, will be avoided unless students

demand and approve an increase for the specific purpose of carbon emissions reductions” (7)

- “An energy performance contract (EPC) is a contract whereby the cost of implementing energy efficiency and capital improvements is funded by the energy and maintenance cost savings generated by the improvements when the implementation costs are financed over a period of time... At its core, an EPC is a financing vehicle that allows facility managers to make infrastructure improvements today that will be paid for from future energy savings” (19)
- “Financial support for all of these programs and initiatives will necessarily come from multiple sources. To the maximum extent possible, federal and state grants will be sought to address funding needs. In addition, grants and donations from private foundations and interested donors will be sought where possible” (34)
- “State operating and construction appropriations will also be used to improve and update the energy and environmental infrastructure of the University. Selective and careful consideration will be given to energy saving projects as candidates for state funding” (34)

#### **Progress Report:**

- “The Environmental Ambassadors are also responsible for implementing sustainability-related projects using \$9,800 in annual funds allocated through student fees.” (22)

**Summary:** Although the CAP does not state specific funding amounts, multiple sources of funding are considered. Initial funding will be pursued from sources outside of the university such as state, federal, and private foundation grants. An energy performance contract (EPC) will be developed, where the cost of implementation for certain energy saving strategies will be funded through the energy and maintenance savings brought about by the upgrade. The plan specifically states that increasing student tuition and fees will be avoided unless specifically requested.

### **5. How did the CAP inform/engage stakeholders?**

*Did the plan include discussions about stakeholder involvement? Specifically, how did the plan address engaging stakeholders in participating in the CAP?*

- “Our vision is for Weber State University to achieve carbon neutrality by 2050... All of the students, faculty and staff will be engaged in this effort both on and off campus” (4)

- “The University President’s Council will be the governing body for execution of this plan, and will provide policy approval, program guidance and funding support as resources allow” (5)
- “[The appointed staff member from Facilities Management] will assure that long term carbon reduction and sustainability issues are addressed in the University planning efforts, and will communicate long term planning goals to the FS-EIC and other stakeholders” (6)
- “The university must work with Ogden City to promote trails and bicycle friendly routes to allow more students, faculty and staff to use bicycles as the mode of transportation to and from campus” (32)
- “Outreach initiatives will be encouraged and supported to the maximum extent possible given resources available. Collaboration with other colleges and universities in the state and region will be encouraged” (33)

**Summary:** Participant stakeholders for the university’s CAP include the University President’s Council, facilities management, the City of Ogden, as well as faculty, students, and staff. The CAP recognizes that involvement from all facets of the university will be required for successful implementation.

## 6. Does the CAP mention gaps in data, uncertainties, or other challenges encountered?

*Does the CAP address where data may be insufficient or unavailable? Take note of barriers to planning and implementation, uncertainties in climate projections or future emission scenarios, inconsistencies in data collection, etc.*

- “Weber State University does not, at this time, have meters on individual facilities and infrastructure components to determine utility consumption by facility” (8)
- “An effective method of determining university sponsored air travel does not currently exist” (16)

### **Progress Report:**

- “Overall progress is being impeded by Scope 3 emissions. As long as the vast majority of the WSU community chooses to travel to campus in a single-occupancy vehicle, it is given that emissions from University commuters will remain high and will rise as population increases.” (8)

**Summary:** Most uncertainties stated in the CAP originate from lack of available data. Examples include shortage of facility metering for monitoring consumption and inconsistencies in university air travel data.

## 7. What purpose do the appendices serve?

*How extensive is the appendices section? Take note if they include extra graphs, tables, data, methodology, further detail and explanations, information on the planning process, etc.*

**Summary:** No appendices present in this CAP. Instead, a few graphs and tables are interspersed throughout the document.

## 8. Interesting notes and observations:

*Does this CAP discuss anything else of interest? What observations did you make that might be of value further exploring? What about this CAP seems particularly unique or noteworthy?*

- “Further, to achieve carbon neutrality, a total systems approach will be used to reduce carbon emissions throughout the supply and resource distribution chain, from raw material acquisition, through manufacture and transportation, to end use, then reuse, recycling or disposal” (5)
- “Only after the University has done all it can reasonably and economically afford to do will purchased carbon credits be explored to make up the difference that remains to achieve carbon neutrality.” (5)
- “The educational element will be emphasized so that the effects of accumulating greenhouses gasses on the atmosphere will be fully explained, and the actions that society and individuals can take to reduce or mitigate the effects of these greenhouse gasses will be understood and communicated wherever Weber State Students may go after their formal education at Weber State ends” (7)
  - “A further benefit of the educational program offerings will be to affect behavioral changes in faculty, staff and students that will result in further currently undefined reductions in carbon emissions and energy consumption” (7)
- “LEED certification is not an end in itself. Some LEED points are not cost effective, and do not warrant pursuit.” (21)



- “Trees are a tremendously valuable asset...Weber State University is committed to planting more trees on campus to enhance educational program offerings by introducing more biodiversity” (24)
- “These [xeriscape] areas [where no irrigation is employed] use native plants that can thrive on the natural rainfall” (27)

### **Progress Report:**

- “Though some organizations might utilize a sustainability report to emphasize success and gloss over failures, we believe **a frank assessment** provides vital insight for moving toward our goals” (1)
- Leadership statement: “We feel that long term sustainability, improving our natural environment, and sound business decisions are not mutually exclusive, but are instead synergistic in making our university more attractive to students, more cost effective overall, and provide the greatest value overall for our financial and human resource investments. We are in this for the long term.” (2)
- List of awards and accomplishments (3)
- “The Energy and Sustainability Office works directly with the **Department Green Team** to achieve sustainability points and ultimately, department certification. There are four different levels of certification: bronze, silver, gold, and green. Departments earn money by pursuing sustainability actions listed on the checklist and maintaining their certification level.” (21-22)

**Summary:** The plan incorporates other major pre-existing plans such as the Energy Savings Investment Plan, Master Transportation Plan, and Landscape Master Plan (8). Other notable observations include purchasing carbon credits, creating xeriscape areas, the importance of a frank assessment, a leadership statement, awards and accomplishments, and establishing a Department Green Team to certify specific departments within the university.