



Citrus Community College District Sustainability Plan



Produced by the
Citrus College Sustainability Committee

2020

ACKNOWLEDGMENTS

The authors of this plan would like to acknowledge the following individuals for their efforts and support in the creation of the Citrus College Sustainability Plan.

Citrus Community College District

- Citrus Community College District Board of Trustees
 - Dr. Patricia Rasmussen, President
 - Mrs. Susan M. Keith, Vice President
 - Mrs. Joanne Montgomery, Clerk/Secretary
 - Dr. Barbara Dickerson, Member
 - Dr. Edward C. Ortell, Member
 - Ms. Nancy Gonzalez-Villatoro, Student Representative
- Geraldine M. Perri, Ph.D, Superintendent/President
- Claudette Elias Dain, Vice President, Finance and Administrative Services
- Sustainability Committee
 - Fred Diamond, Chair, Director of Facilities and Construction
 - Claudette Elias Dain, Vice President, Finance and Administrative Services
 - Leigh Buchwald, Network & Telecommunications Systems Supervisor
 - Ernie Loera, Associate Director of Facilities
 - Shawn Jones, Director of Business Services
 - Mike Ramos, Interim Environmental Health & Safety Supervisor
 - Jeremy Clark, Faculty
 - Dr. Arvid Spor, Vice President of Academic Affairs
 - Dan Vilter, Performing Arts Technical Supervisor
 - Fernando Flores, Student
 - Tiina Mittler, Director of the Haugh Performing Arts Center
 - Jorge Cortez, Transportation/Warehouse Coordinator
 - David Colindres, Buyer
 - Julian (Trip) Horton, Physical Education Athletics Facilities Supervisor
 - Phil Hawkins, Interim Maintenance Supervisor
 - Doug Schultz, Communications Supervisor
 - Berta De Los Santos, Facilities Operations Assistant
 - Dr. Maryann Tolano-Leveque, Dean of Students

External Agencies & Partners

- Lisa Hannaman, Southern California Edison
- Gustavo Sevilla, Southern California Gas Company

California Community Colleges Chancellor's Office

- Hoang Nguyen, Director of Facilities

TABLE OF CONTENTS

SECTION 1. EXECUTIVE SUMMARY

SECTION 2. BACKGROUND

- 2.1 HISTORY OF SUSTAINABILITY EFFORTS TO DATE
- 2.2 CREATION OF THE SUSTAINABILITY PLAN
- 2.3 COLLEGE SUSTAINABILITY COMMITTEE
- 2.4 THE POLICY CONTEXT OF SUSTAINABILITY PLANNING

SECTION 3. VISION STATEMENT, GOALS, AND PRIORITIES

SECTION 4. PROGRAMS AND PROJECTS FOR IMPLEMENTATION

- 4.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE
- 4.2 ENERGY EFFICIENCY
- 4.3 FACILITIES OPERATION
- 4.4 SUSTAINABLE BUILDING PRACTICES
- 4.5 ON-SITE GENERATION AND RENEWABLE ENERGY
- 4.6 TRANSPORTATION, COMMUTING, AND COLLEGE FLEET & TRAVEL
- 4.7 WATER, WASTEWATER, AND SUSTAINABLE LANDSCAPING
- 4.8 SOLID WASTE REDUCTION AND MANAGEMENT
- 4.9 GREEN PURCHASING
- 4.10 STUDENT AND CURRICULUM DEVELOPMENT
- 4.11 COLLEGE AND COMMUNITY OUTREACH & AWARENESS
- 4.12 ESTABLISH A COMMITMENT TO CLIMATE ACTION

SECTION 5. MEASURE AND REPORT PERFORMANCE

- 5.1 MEASURING PERFORMANCE
- 5.2 REPORTING PERFORMANCE

SECTION 6. APPENDICES

- 5.1 APPENDIX 1: CITRUS COLLEGE SUSTAINABILITY COMMITTEE
- 5.2 APPENDIX 2: IMPLEMENTATION PROGRAMS AND PLANS CHECKLIST

SECTION 1.**EXECUTIVE SUMMARY**

As with many public sector agencies, Citrus College recognizes the environmental, economic, and social benefits of resource efficiency and sustainability. The passage of the California Global Warming Solutions Act (AB-32) and the establishment of a Sustainability Policy by the California Community Colleges (CCC) Board of Governors have made it imperative for California's community colleges to develop an organized, comprehensive approach that incorporates the elements of sustainability, satisfies state regulations, takes advantage of and captures available resources and complimentary programs, and adopts best management practices in a concise and proactive plan for the future.

Sustainability is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." The purpose of the Citrus College Sustainability Plan is to prepare the College for the anticipated environmental and regulatory challenges of the 21st century, to guide the College towards becoming a more sustainable institution, to prepare students for the green economy, and ultimately to be an overall good steward of College resources.

The following Sustainability Plan articulates the vision, goals, and objectives established by the College for sustainability, as well as the strategies to meet these goals. This Plan has been developed by the Citrus College Sustainability Committee, which includes students, faculty and staff. The Sustainability Committee has developed this Sustainability Plan in coordination with the many different College stakeholders to ensure that the plan meets the needs of the College.

**Sustainability
Vision Statement**

Citrus College will promote an active learning, listening, and participatory environment, where students, faculty and staff are immersed in quality education and collaborate with peers, colleagues, and industry professionals in order to encourage and create sustainability awareness and social responsibility, thereby, fostering the advancement of sustainable practices and conservation of resources for the college proper, community and nation as a whole.

SECTION 2. BACKGROUND

2.1 HISTORY OF SUSTAINABILITY EFFORTS TO DATE

Citrus College has been at the forefront of sustainability since the mid 1990's and has made significant strides in energy efficiency. As new technologies are developed, the College has installed energy efficient lighting, installed and maintained heating, ventilation and air-conditioning (HVAC), lighting controls, energy management systems (EMS), initiated and installed three retro-commissioning (RCx) projects, completed two xeriscaping projects, implemented California Energy Commission (CEC) grant-funded electronic "smart controls" for computers and peripherals as well as implemented server and desktop virtualization, and designed and constructed all new buildings to a U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Silver equivalent ratings. Over the past six years, through grant funding provided by Proposition 39, the College has been able to cumulatively save approximately 2.5 million kilowatt hours of energy per year. Additionally, Citrus College will soon be commissioning start-up of its first photovoltaic (PV) project. According to engineering evaluations, this PV installation could provide up to 900,000 kilowatts of electrical power generation per year. For the future, Citrus College proudly continues to identify new sustainable technologies for the built environment and promotes viable and sustainable practices with students, faculty and staff.

While the primary focus of the College's efforts have been in energy efficiency and conservation, there are many other areas of sustainability where active programs are being implemented. Citrus College continues to manage a sophisticated recycling program and on-campus materials recycling facility to capture recyclables from its waste stream. The College has implemented numerous water conservation strategies, storm water pollution prevention measures, and has adopted a green purchasing program for office supplies, and cleaning/custodial supplies.

From a broader perspective, the College has actively developed the 2020-2030 Educational and Facilities Master Plan, which identifies facilities needs pursuant with the educational needs of the College. The 2020-2030 EFMP identifies growth and modernization projects that would accommodate the latest in sustainable practices, energy efficiency, code compliance, preparation for a growing green economy, and will guide the College for the next ten years.



2.2 CREATION OF THE SUSTAINABILITY PLAN

To create this Sustainability Plan, Citrus College followed the process and utilized the tools provided in the California Community Colleges Sustainability Template. Developed by Citrus College and the California Community Colleges Chancellor's Office with support from a grant provided by the California Energy Commission, the Sustainability Template is a model platform that is available for use by all California community colleges. Illustrated in the chart in section 2.1, the development process is clear, concise, effective and actionable. The implementation of the sustainability planning process and the resulting Sustainability Plan are described comprehensively in the following chapters.

In August 2012, the Citrus Community College District Board of Trustees made a commitment to improve the College's sustainability policy by approving the first formal Citrus College Sustainability Plan. This marked the beginning of a new era for Citrus College and the Sustainability Plan. The Citrus College Sustainability Committee spearheaded this effort. While the members of the Sustainability Committee change, the goals, viability and vision remain founded and have led to the second generation of the Sustainability Plan.

The College Sustainability Committee followed the process illustrated in the aforementioned chart to develop the Sustainability Plan.

2.3 COLLEGE SUSTAINABILITY COMMITTEE

In order to manage this process and to fortify the on-going comprehensive Sustainability Plan, the College maintains the Sustainability Committee, consisting of faculty, staff, and students to provide representation from the different College stakeholders. From its onset with the first Citrus College Sustainability Plan in 2012, the committee has remained responsible for developing and implementing the sustainability programs and projects described in the Sustainability Plan, thereby, fostering the sustainability goals of the College.

The Chair of the Sustainability Committee is Mr. Fred Diamond, Director of Facilities and Construction, and he can be reached at fdiamond@citruscollege.edu or (626) 914-8691.



2.4 THE POLICY CONTEXT OF SUSTAINABILITY PLANNING

Sustainability can provide environmental, economic and social benefits to the College. However, there are other motivations for Citrus College to pursue these practices. The State of California has been on the forefront of efforts in establishing aggressive policies and standards for environmental protection and reducing greenhouse gas (GHG) emissions that contribute to global warming. In 1970, the State adopted the California Environmental Quality Act (CEQA) with the goal of informing governments and the public about potential environmental impacts of projects. From 2005 onward, legislation has been passed to directly regulate GHG emissions by utilizing incentive mechanisms, cap-and-trade programs, and mandatory reporting while encouraging voluntary activities such as purchasing emissions offsets and offering renewable energy certificates (RECs). Compliance with state policies and regulations regarding these issues is an important factor for consideration by Citrus College.

The following outlines the numerous policy and regulatory drivers that contributed to the creation of this plan.

2.4.1 CCC BOARD OF GOVERNORS ENERGY AND SUSTAINABILITY POLICY

To encourage the California community colleges in moving to a more sustainable future, the CCC Board of Governors approved the Energy and Sustainability Policy in January 2008, which put forth goals for each college campus to reduce its energy consumption from the 2001-02 baseline by 15 percent; all to be attained by 2011-12. The policy also sets goals for minimum efficiency standards of new construction and renovation projects and provides an incentive of 2 percent of construction costs for new construction projects and 3 percent of construction costs for modernization projects. It also sets goals for energy independence through the purchase and generation of renewable power and energy conservation through the pursuit of energy efficiency projects, sustainable building practices, and physical plant management.

The California Community Colleges Chancellor's Office aligns sustainability policy by way of the Board of Governors. Subsequently, the Board of Governors has also adopted a climate change and sustainability goal structure that will carry the California Community Colleges system through the next decade with critical goals occurring in 2025 and 2030. The Board of Governors aligns sustainability policy in accordance with State of California climate regulations.

2.4.2 SIGNIFICANT STATE OF CALIFORNIA CLIMATE REGULATIONS

2.4.2.1 *State of California Executive Order S-3-05*

Executive Order S-3-05 was signed by the Governor of California in 2005, thereby, identifying the California Environmental Protection Agency (Cal/EPA) as the primary state agency responsible for establishing climate change emission reduction targets throughout the state. The Climate Action Team, a multi-agency group comprised of various state agencies, was formed to implement the Executive Order S-3-05. Shortly thereafter, in 2006, the team introduced GHG emission reduction strategies and practices to reduce global warming. These measures are aimed at meeting the Executive Order's long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050.

2.4.2.2 Global Warming Solutions Act of 2006 (AB-32)

The Global Warming Solutions Act, or Assembly Bill 32 (AB-32), was adopted in 2006 by the California legislature, establishing two key requirements in regard to climate change reduction measures. The first requires that California GHG emissions be capped at 1990 levels by 2020, and the second establishes an enforcement mechanism for the GHG emissions reduction program with monitoring and reporting implemented by the California Air Resources Board (CARB).

In 2008, the Assembly Bill 32 Scoping Plan was released by CARB which describes measures to implement the requirements set by AB-32. In addition to partnering with local governments to encourage the establishment of regional emission reduction goals and community regulations, the Scoping Plan uses various mechanisms to reduce emissions state-wide, including incentives, direct regulation and compliance mechanisms.

2.4.2.3 California Renewables Portfolio Standard

The California Renewables Portfolio Standard (RPS) was established in 2002 under Senate Bill 1078 and mandated that electrical corporations increase total procurement of eligible renewable resources by at least 1 percent per year to reach a goal of 20 percent electricity generation from renewable resources. These goals were accelerated in 2006 under Senate Bill 107, which mandated that at least 20 percent of the total electricity sold be generated from renewable resources by the end of 2010. The RPS was further extended in 2008 by Executive Order S-14-08, which required that 33 percent of total electricity sales be generated from renewable resources by 2020. In April of 2011, this RPS standard of 33 percent renewable by 2020 was enacted into law through final passage of Senate Bill X 1-2 (Simitian) and extended to apply to both public- and investor-owned utilities.

2.4.2.4 Senate Bill 97

Senate Bill 97, passed in 2007, required the Governor's Office of Planning and Research (OPR) to develop and recommend amendments to CEQA guidelines for addressing GHG emissions related to land use planning. The amendments to CEQA were approved and became effective in March 2010, thereafter, requiring all CEQA documentation to include and comply with the new amendments established for addressing greenhouse gas emissions.

2.4.2.5 Senate Bill 375

Senate Bill 375 was passed in 2008 to reduce GHG emissions caused indirectly by urban sprawl throughout California. The bill offers incentives for local governments to execute planned growth and development patterns around public transportation in addition to revitalizing existing communities. Metropolitan Planning Organizations (MPOs) work with CARB to reduce vehicle miles traveled by creating sustainable urban plans with a comprehensive focus on housing, transportation, and land use. Urban projects consistent with the MPO's Sustainable Community Strategy (SCS) can bypass the CEQA's GHG emission environmental review. This provides developers with an incentive to comply with local planning strategies, which support the State's greater effort for overall emission reduction in the land use and transportation sector.

2.4.2.6 Assembly Bill 341

Effective July 1, 2012, businesses and public entities, including schools and school districts, that generate four cubic yards or more of waste per week, and multifamily units of five or more, are required to recycle. AB 341 also established a statewide goal of 75 percent diversion of solid waste to landfills. The purpose of this law was to reduce greenhouse gas emissions by diverting commercial solid waste to recycling efforts and to expand opportunities for additional recycling services and recycling manufacturing facilities in California.

2.4.2.7 Regional Air Pollution Control Districts (APCD) and Air Quality Management Districts (AQMD)

In 1947, the California Air Pollution Control Act was passed and authorized the creation of Air Pollution Control Districts (APCDs) and Air Quality Management Districts (AQMDs) in every county. APCDs and AQMDs are tasked with meeting federal and state air pollution requirements set by the Clean Air Act. Air districts can develop regulations to achieve the necessary public health standards, though these regulations need approval from the California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA). APCDs and AQMDs have jurisdiction over businesses and stationary sources of emissions and can offer varying levels of outreach, grants, CEQA review, and technical assistance to interested public and private parties. The APCDs and AQMDs do not have the authority to regulate mobile air pollution sources, which is the responsibility of CARB, and must defer to state or federal regulations provided by CARB and the EPA.

2.4.2.8 Senate Bill 100

In September 2018, Governor Brown signed Senate Bill 100 (SB 100), authored by Senate President Pro Tempore Emeritus Kevin de Leon. The bill, accompanied by an executive order, put California on the path to meet a 100 percent carbon neutrality goal by 2045. SB 100 advanced the state's existing Renewables Portfolio Standard (RPS) to 50 percent by 2025, 60 percent by 2030 and provided for a "most ambitious carbon neutrality commitment of any major economic jurisdiction in the world," according to Governor Brown.

SECTION 3.**VISION STATEMENT, GOALS, AND PRIORITIES**

The Citrus College Sustainability Committee has developed the following Vision Statement to guide its Sustainability Planning efforts.

Citrus College will promote an active learning and participatory environment, where students, faculty and staff are immersed in quality education and collaborate with peers and industry professionals to encourage and create sustainability awareness and social responsibility, thereby, fostering the advancement of sustainable practices and conservation of resources for the College proper, community and nation as a whole.

To realize this Vision Statement, the Citrus College Sustainability Committee has defined the following sustainability goals and priorities. The goals and priorities for the Sustainability Plan reflect College needs, interests, and available resources.

Goal Number	Area of Sustainability	Established Goal
1	Economic Return on Investment	Evaluate the return on investment of capital improvements for sustainability based projects based upon life-cycle Net Present Value (NPV).
2	Energy Efficiency	Reduce overall energy consumption by five percent within three years. Establish new reduction goals after three years, based on planned activities and additional opportunities that may be captured.
3	The Built Environment	Construct all major capital projects to meet a LEED Silver "equivalent" standard, with goals to reduce energy and water use, wastewater discharges and sustainable landscaping practices. Comply with the Cal Green Code as enforceable through Title 24, CCR.
4	Technology Utilization	Continue to take advantage of new technologies and technology-based improvements in all areas of waste reduction, energy usage and sustainable culture.
5	Renewable Energy Use	Procure electricity from viable renewable sources that comply with Title 24, CCR.
6	Leadership and Champions	Identify College community members who will be enthusiastic, involved, reasonable and responsible to lead the College in its sustainability efforts and to set the example for generations to come.
7	Waste Diversion and Management	Continue to implement the recycling program, expand it to include all sectors of recycling and

		waste reduction to landfills, comply with recycling program requirements of AB-341 and continue to exceed the statewide landfill diversion goal of 75 percent by 2020.
8	Transportation Efficiency	Reduce the reliance of students, faculty and staff on single occupancy vehicle commutes by 5 percent within the next five years. Encourage the utilization of public bus and rail transportation, carpooling and bicycling to campus.
9	Communication and Education	Develop and implement a program to raise awareness in the College community to inspire behavioral changes to enhance sustainability. Publish success stories via mass media to the broader College community each semester.
10	College and Community Involvement	Increase community awareness and support of the College sustainability efforts through the use of targeted media. Engage students via club awareness and ASCC interaction.
11	Curriculum	When appropriate to a program of study, encourage the inclusion of sustainability content (social responsibility, sustainable development strategies, and carbon management) into curriculum and/or instructional material.
12	Continuous Improvement	Improve existing sustainability efforts by analyzing and auditing current activities to identify changes to processes and to increase effectiveness and develop future goals. Analysis of energy and water usage and solid waste management programs will be completed at the end of each fiscal year.
13	Greenhouse Gas Reduction	Reduce annual GHG emissions to 1990 levels by 2020 and achieve climate neutrality by 2050. Align goals with the California Community Colleges Chancellor's Office guidelines.
14	Avoided Costs	Tabulate and review the annual cost avoidance associated with the implemented energy measures.

The goals and criteria established for the Sustainability Plan will be monitored during Plan implementation as described in Section 5, "Monitor and Report Performance."

SECTION 4.**PROGRAMS AND PROJECTS FOR IMPLEMENTATION**

Based on the goals and priorities described above, the Citrus College Sustainability Committee has selected the following programs and projects to actively improve College sustainability.

These key programs and projects were selected from a menu of suggested programs and projects from the California Community Colleges Sustainability Template. As a result, the major headings and individual programs and projects that are numbered in this Plan (Section 4) reflect a sequential numbering system outlined for ease in continuity. It should be understood that the CCC Sustainability Template numbering system for programs and projects is found in Section 7 of the Template.

4.1 MANAGEMENT AND ORGANIZATIONAL STRUCTURE

In order to implement an effective Sustainability Plan, it is important for Citrus College to have a policy mandate for sustainability, the institutional structure required to manage the process, and the financial and programmatic expertise to accomplish Plan goals. The College will implement the following programs to meet this requirement.

4.1.1 ADOPT A DISTRICT SUSTAINABILITY POLICY

The Citrus Community College District Board of Trustees adopted a Sustainability Mission Statement and expressed support for the development of the College's first Sustainability Plan by passing Resolution No. 2011-12-08 at its April 3, 2012 meeting. That action provided the policy mandate for the Sustainability Committee and the College at large to create and implement the Citrus College Sustainability Plan. This Sustainability Plan is an enhanced and updated plan that reflects the College's current goals and is aligned with the College's newly updated 2020-2030 Educational and Facilities Master Plan.

4.1.2 APPOINT A SUSTAINABILITY COMMITTEE

The Citrus College Sustainability Committee, consisting of students, faculty and staff, was established in March 2012 to develop the Sustainability Plan and to manage and track its implementation. Over time, members of the committee change, new members are added and some members drop from participation, but the overall management of the plan is relegated to the current members. The Committee meets approximately quarterly to implement the plan and to report progress to the College community. A complete listing of committee members is included in Appendix 1.

4.1.3 EMPLOY SUSTAINABILITY PROFESSIONALS, AS REQUIRED

Many of the programs and projects that will be implemented as part of the Sustainability Plan will require expertise that the College does not possess. As needed, the Sustainability Committee will recommend to College administration if specialized professional assistance is required to accomplish the goals of the Plan.

4.1.4 INTEGRATE SUSTAINABILITY PLANNING INTO MASTER PLANNING

The Educational and Facilities Master Plan and sustainability planning should be integrated and complementary. As the Educational and Facilities Master Plan is reviewed and revised, elements of the Sustainability Plan will be incorporated to ensure that the College goals for sustainability are reflected in this over-arching planning document. The newly developed 2020-2030 Educational and Facilities Master Plan is fully aligned with the sustainable goals of the College and the Sustainability Plan operates in concert with the Educational and Facilities Master Plan.

4.2 ENERGY EFFICIENCY

Energy efficiency is one of the most cost-effective ways to reduce the College's energy use and its resultant carbon footprint. When implemented properly, efficiency measures can decrease energy use without compromising comfort. It can also improve indoor air quality while enhancing student, faculty and staff performance. Energy efficiency will be a higher priority than renewable or other on-site energy generation due to more favorable economics and having a greater impact on GHG emissions.

The following energy efficiency programs and projects will be implemented at Citrus College.

4.2.1 SET ENERGY EFFICIENCY GOALS

It is important to set goals for the reduction of any resource in order to define success. During the development of the Sustainability Plan, one of the key goals established by the Sustainability Committee was to "Reduce overall energy consumption by 5 percent within three years and establish new reduction goals after two years based on plan activities and additional opportunities." The College's Director of Facilities and Construction will be responsible for the implementation and monitoring of this goal.

4.2.2 EVALUATE MECHANISMS FOR THE IMPLEMENTATION OF ENERGY EFFICIENCY PROJECTS

Citrus College will evaluate various mechanisms for the identification and implementation of energy efficiency projects and programs, including the use of in-house staff, engineering consultants, and contractors. The College has already been successful in leveraging expertise and resources from Southern California Edison and the CCC/IOU Energy Efficiency Partnership for the identification of College energy savings projects.

4.2.3 CONDUCT A FACILITY PRIORITIZATION SURVEY

The College's Director of Facilities and Construction will continue to perform a Facility Prioritization Survey. The survey will be used to establish priorities for conducting comprehensive facility energy audits, which are currently planned by Southern California Edison. Buildings will be prioritized based on energy use intensity (EUI) (i.e., electricity and natural gas use per gross square foot per year). Subsequently, buildings with the highest energy use intensity are given highest priority. In the event that metered data does not exist or is unavailable, buildings that are recognized to be high energy users by College staff will be prioritized first.

4.2.4 CONDUCT COMPREHENSIVE FACILITY ENERGY AUDITS

As previously described, plans are already in place to perform comprehensive energy audits at targeted College facilities. These audits are performed by Southern California Edison (SCE) and the assets available to the CCC/IOU Energy Efficiency Partnership. An audit report will be issued by SCE that will identify low-cost and no-cost energy efficiency improvements, as well as retrofit and capital improvement project opportunities with detailed energy savings and economic calculations.

4.2.5 IMPLEMENT NEW AND EXISTING AUDIT RECOMMENDATIONS

Based upon the results of the audits and available resources, the College will initiate implementation of the audit recommendations. Priorities will be determined by current energy usage, return on investment and available resources.

4.2.6 IDENTIFY AND TAKE ADVANTAGE OF GRANT AND INCENTIVE PROGRAMS

The College has been and continues to be an active participant in the CCC-IOU Energy Efficiency Partnership incentive program, the SCE Savings-by-Design program, and actively explores and takes advantage of grants where appropriate. Citrus College has also been able to capture enormous economic benefit by utilizing the Prop. 39 grant program for jobs creation and energy efficiency. The College will continue leveraging resources based upon funding availability from the State of California.

4.2.7 EFFICIENT LIGHTING AND LIGHTING CONTROLS

Citrus College has performed a variety of energy efficient lighting retrofit projects in recent years, including state-of-the art classroom and office lighting, parking lot lighting, pedestrian pathway lighting, core campus lighting and sports field and stadium lighting retrofits. These lighting retrofits have been very successful in increasing illumination and increasing efficiency while reducing cost. Retrofits performed convert incandescent illumination sources to LED illumination sources. The College also continues working with the CCC/IOU Partnership and the Foundation for California Community Colleges on an advanced LED lighting procurement project which will result in a “piggy-backable” contract that can be used by any CCC district.

4.3 FACILITIES OPERATIONS

In addition to installing energy efficient equipment, Citrus College strives to operate high-performing facilities, buildings, and energy infrastructure systems that are optimized for occupant comfort, productivity, and energy and resource efficiency. Current and planned activities in this area are described in the following sections.

4.3.1 ENCOURAGE AND SUPPORT ENERGY EFFICIENCY TRAINING OF STAFF

As part of the personnel development program, Citrus College continues to train, inform, encourage and keep facilities staff abreast with the latest information in energy-saving maintenance measures and technologies. By being an encouraging steward, the College supports energy efficiency and social responsibility.

4.3.2 INSTALL ENERGY MANAGEMENT SYSTEMS

Citrus College has installed a computerized Energy Management System (EMS) and Building Automation Controls (BAC) to provide centralized reporting and control of energy related activities. College staff strives to achieve optimum efficiency in the use of natural gas, electricity, or other energy resources to meet the heating, cooling, and lighting needs of the College buildings and facilities. The existing EMS system that controls lighting and HVAC was installed many years ago and is continually maintained, upgraded and updated as necessary. As resources become available, the long-term plan is to expand and further upgrade the EMS system.

4.3.3 OPTIMIZE HVAC EQUIPMENT SCHEDULING

Citrus College employs a scheduled maintenance and operations plan for all HVAC equipment and building occupancy scheduling in order to avoid cooling and heating of spaces when unnecessary. The three planned retro-commissioning (RCx) projects undertaken by the College for the central plant chilled water and hot water systems and building systems have greatly improved optimization of HVAC systems. The College will continue to take advantage of programs offered by the utilities for optimizing HVAC systems as they become available. Currently, the California Public Utilities Commission is undergoing a revamping of the incentivization options offered through the public utilities. The new offering will likely be introduced to the CCC's system in fiscal year 2021-22. The new program will impact how all energy efficiency projects and RCx projects are undertaken, managed and reconciled.

4.3.4 ACTIVATE ENERGY-SAVING FEATURES FOR APPLIANCES AND COMPUTERS

The College activates energy-saving features on all appliances and computer equipment, such as power-saving modes on PCs, copiers, printers, and other office equipment. Citrus College has installed server and desktop virtualization and PC power management systems including time-of-use (TOU) measures to reduce computer energy use. The College has also participated in California Energy Commission grant programs for the installation of two generations of plug load occupancy sensor strips at work stations. These grant programs further reduce energy use of office and classroom equipment. Additionally, the information that is obtained by implementation of these grant programs allows engineers to better design peripherals.

4.3.5 PURSUE RETRO-COMMISSIONING (RCX) AND MONITORING-BASED COMMISSIONING (MBCX)

Citrus College has participated in several Southern California Edison retro-commissioning (RCx) pilot programs to improve central plant and HVAC operations. RCx is a process that identifies individual energy efficiency measures that improve the control of the system and reduce energy usage. As mentioned in Item 4.3.3, the California Public Utilities Commission (CPUC) is in the process of revamping the incentive process that is made available to CCC's via the utilities, such as SCE and SoCal Gas. The new process, likely available in 2021-22, will require individual metering and histo-graphical data for each building on campus if a college desires to receive any incentive for undertaking an energy efficiency project. Citrus College, anticipating the change in programming from the CPUC, has already begun installing sub-metering on several buildings. The College will continue to install sub-metering on its facilities as viable.

At a future time, the College will consider an MBCx program for buildings. MBCx is a process that optimizes

building performance for comfort and energy use through the use of permanent whole-building metering and energy monitoring. This program will be available in addition to the RCx model by the CPUC at a later date.

Citrus College also employs a scheduled maintenance and operations plan for the HVAC equipment that reduces downtime and occurs when facilities are not occupied. The College will continue with this best practice.

4.4 SUSTAINABLE BUILDING PRACTICES

Construction and renovation of new and existing facilities provides a significant opportunity to reduce the environmental impacts of the built environment through sustainable building practices. Citrus College incorporates energy and resource efficient “Green Building” practices in the design and construction of all new and renovated facilities.

4.4.1 ESTABLISH A GREEN BUILDING STANDARD

Citrus College has established the U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Silver “equivalent” rating as their building standard. All architectural and engineering contracts incorporate this design standard requirement. The LEED rating system is an industry “best practice” and is commonly used in higher education and commercial building construction.

4.4.2 IMPLEMENT SUSTAINABLE DESIGN PRACTICES

All new construction, renovation, maintenance, and repair projects are designed with consideration of College sustainability goals and all applicable energy codes and regulations. Energy efficiency and sustainable design is addressed early in the project planning and design phase to maximize cost effectiveness. Citrus College takes full advantage of the SCE Savings-by-Design program, which provides technical expertise and incentives to incorporate sustainable design practices in all new construction and building renovation projects.

4.4.3 USE AN INTEGRATED SYSTEMS APPROACH IN BUILDING DESIGN

Sustainable building goals are evaluated in a cost-effective manner by identifying economic and environmental performance criteria, evaluating life cycle savings, and adopting an integrated systems approach. Such an approach treats the entire building as one system and recognizes that individual building features, such as lighting, windows, heating and cooling systems, should be evaluated and designed as interactive systems. This integrated approach to sustainable design is a feature of the SCE Savings-by-Design “whole building” process employed at Citrus College.

4.4.4 HIRE SUSTAINABLE BUILDING DESIGN PROFESSIONALS

Citrus College only hires licensed and certified design professionals for all of the architectural and engineering needs of the College. Additionally, these professionals are also LEED certified and have the relevant background and expertise to fully engage the sustainable design requirements of the College. Furthering this proactive approach, College management actively engages the design professionals on sustainable issues.

4.4.5 COMMISSION NEW BUILDINGS

Commissioning of a building, whether a new building or a modernized building, is the last and final process that occurs prior to obtaining occupancy by the College. Citrus College commissions all newly built buildings and employs the engineering expertise of the design team, of material suppliers and of outside third-party individuals to ensure that the newly built environment is performing at its best. The College will continue this best management practice (BMP).

4.5 ON-SITE GENERATION AND RENEWABLE ENERGY

4.5.1 EVALUATE AND INTEGRATE RENEWABLE ENERGY GENERATION

Citrus College has successfully implemented its first phase of solar photovoltaic (PV) generation on campus. Located in parking lots S2 and E2, the PV is incorporated into covered parking infrastructure and is interconnected with the SCE power distribution network. The College will continue to evaluate whether additional PV is appropriate and will implement new installations based upon economic viability and SCE interconnection regulations.

4.5.2 EVALUATE AND IMPLEMENT LOAD SHIFTING TECHNOLOGIES

Load shifting is a powerful tool in reducing the cost of electricity. SCE offers several programs for calculating the monetary cost of electrical usage and time-of-use (TOU) is often the most cost-effective program for large institutions such as Citrus College. The College subscribes to TOU and by doing so, load shifting becomes very useful for averting extreme cost. Citrus College uses a central plant for providing heating and cooling to the interior spaces of the majority of its buildings, and the central plant uses advanced thermal storage technology for delivery of the space cooling. Space cooling is the most expensive item for electrical consumption. By operating the central plant at “off peak” times, the College is able to use energy when it is less expensive and is therefore able to load shift. Citrus College will continue to utilize load shifting technologies.

4.5.3 MIGRATE TOWARD ZERO NET ENERGY (ZNE)

As the State of California moves toward a green economy and lessens its burden on a fossil-fuel based economy, the State has incorporated a number of mandates initiated by the Governor’s Office. The Governor’s mandates have since been adopted via resolution by the Board of Governors and have been initiated through the Community Colleges Chancellor’s Office. Currently, as unfunded mandates, many of these initiatives will be implemented over time via statute (code changes) in the California Building Code suite. The mandates are collectively known as ZNE and have achievement goals. ZNE has two fundamental variables for success, which are: energy efficiency and generation. Fundamentally, ZNE is defined as the “energy consumed in a building” is to be equal to the “energy generated by the building.” The College has been proactive about energy efficiency over the last 15+ years and all of these efforts will prove to be very beneficial. The more energy that the College saves translates into the less energy that the College must generate. Citrus College will continue to migrate toward ZNE and will employ all measures viably possible to ultimately achieve ZNE.

4.5.4 IDENTIFY AND TAKE ADVANTAGE OF GRANT AND INCENTIVE PROGRAMS

Citrus College actively participates on the Management Team for the CCC-IOU Partnership and has direct access to first-hand information of upcoming energy incentives and grant programs. Having participated in virtually all of these past programs, the College has been able to capture an approximate 40 percent reduction in energy usage over the past six years. Likewise, the College has been able to capture energy incentives totaling nearly \$700,000. The College also successfully captured energy grant programs of nearly \$2.3 million. Citrus College will continue to take advantage of all grant and incentive programs available.

4.6 TRANSPORTATION, COMMUTING, AND COLLEGE FLEET & TRAVEL

Citrus College will strive to reduce Vehicle Miles Traveled (VMT) for students, faculty and staff commuting to the campus in an effort to reduce greenhouse gas (GHG) emissions and minimize the infrastructure costs related to parking. The following programs will be implemented.

4.6.1 UNDERSTAND COMMUTE AND TRAVEL PATTERNS

A first step for improving commute and travel patterns at Citrus College will be to get a better understanding of how students, faculty and staff get to the campus. This will be done through commuter surveys, which will be made quick and easy to fill out in order to maximize the number of responses received. In the past, faculty and staff surveys were attempted with limited success. An increased effort will be made in this area to include students. Incentives may be offered to improve participation.

4.6.2 ENCOURAGE AND ENHANCE PUBLIC TRANSPORTATION AND RIDESHARING OPTIONS

Public transportation is an important strategy to reduce vehicular greenhouse gases. The Los Angeles Metropolitan Transit Agency (MTA) recently opened a Gold Line light rail commuter station adjacent to the College campus and is planning extensions to further enhance the Gold Line transportation opportunities. The Gold Line station adjacent to the College has greatly enhanced public transportation options for students, faculty and staff that are commuting to the College. As Citrus College owns the property across the street from where the Gold Line station is located, capturing opportunities by developing this property would further enhance sustainable efforts in reducing vehicular GHG. For more information on this light rail extension go to: www.foothillextension.org.

Furthering leadership in sustainability, the College also provides a Class Pass program which allows students unlimited rides on Foothill Transit buses. The Class Pass is accepted on all Foothill Transit Local and Silver Streak buses, which connect to 22 different cities throughout the San Gabriel and Pomona Valleys, including downtown Los Angeles. Citrus College will continue to evaluate programs offered by the MTA to encourage public transportation ridership to the campus.

4.6.3 ENCOURAGE AND ENHANCE BICYCLING OPTIONS

The College will work to improve bicycle commuting options as well as bicycle rack availability. Plans will be developed to provide secure storage for bikes and additional bike racks on campus. Outreach and education to help commuters overcome obstacles related to bicycling will be implemented.

4.6.4 ENHANCE STUDENT DISTANCE LEARNING

Citrus College will explore additional online education classes via the internet, which reduces travel to and from the campus, and will explore increasing accessibility of courses to more student demographics. Faculty members of the Sustainability Committee will collaborate on opportunities for distance learning and bring them forward for discussion in the shared governance process.

4.6.5 IMPROVE COLLEGE FLEET & TRAVEL

Citrus College will work to improve its fleet including maintenance vehicles, Campus Safety vehicles, and student transportation mass transit vehicles including vans. Implementation of alternative vehicles will be explored including hybrid and electric vehicle (EV) opportunities.

4.6.6 IMPROVE ELECTRIC VEHICLE OPPORTUNITIES

Moving toward a green economy involves widespread measures including transportation opportunities for use of EV technologies. Partnering with SCE stakeholders and the CCC-IOU Partnership, Citrus College will pursue all available assets for growing the EV charging base on campus. SCE is a viable team partner and through the Charge Ready program, the College is able to leverage funding for the installation of EV charging stations. This program will be undertaken as well as all viable resources to enhance and grow the EV field in supporting GHG reduction.

4.7 WATER, WASTEWATER, AND SUSTAINABLE LANDSCAPING

Water conservation is an important component of sustainability and is aggressively pursued by Citrus College. The College strives to reduce potable water use as well as waste water discharges to both the sewer and storm water systems. In addition, the College reduces waste water pollution by minimizing chemical fertilizers and pesticide use in association with landscaping practices.

4.7.1 IMPLEMENT WATER CONSERVATION STRATEGIES

The College has made water conservation a priority for environmental purposes as well as to avoid penalties for excessive water use from the local water and wastewater utilities. Citrus College has installed artificial turf on football fields, football/soccer practice fields, softball fields, the driving range, and the College has successfully incorporated two phases of xeriscaping projects. The xeriscaping projects alone have not only reduced the need for irrigation water, but they have greatly improved the “curb appeal” and beauty of the campus. In addition to greatly reducing the need for irrigation, air-polluting lawn mowing is reduced, chemical pesticides and fertilizers are reduced, and maintenance labor hours have been reduced too.

4.7.2 REDUCE STORM WATER, SEWER DISCHARGES, AND WATER POLLUTION

Storm water discharges are a prime source of pollutants entering the environment and place the College at risk for fines or other regulatory penalties. The artificial turf areas installed at Citrus College provide storm water

retention features that allow run-off to percolate into the ground. In addition, the College has constructed subsurface retention systems under some of the parking lots thereby reducing storm drain discharge. The College also utilizes sand bags as needed to reduce storm water pollution by placing bags around selected catch basins during storm events. This type of best management practice (BMP) prevents unwanted trash waste from entering the greater storm drain system.

4.7.3 ADOPT SUSTAINABLE LANDSCAPING PRACTICES

Sustainable landscaping practices not only conserve water, but can contribute to achieving many other goals for sustainability such as growing and propagating the native flora and fauna relevant to the climate zone of the area. By introducing this BMP, the survivability and long-term success of plant material is greatly enhanced. All new and replanted landscaping is required to be water conserving, drought-tolerant and sustainable for the climate zone associated with the geo-location of the College.

4.8 SOLID WASTE REDUCTION AND MANAGEMENT

For many years, Citrus College has maintained a very successful recycling program that reduces greenhouse gas emissions and landfill deposits. The measures identified in the Sustainability Plan are intended to improve this program and expand efforts into source-separated recycling and green waste/food waste composting. If designed effectively, minimum solid waste can save the College money and create a continued revenue stream that can be reinvested in the College. Citrus College will continue employing the principles for Reduce, Reuse, and Recycle in its solid waste reduction program.

4.8.1 CREATE WASTE REDUCTION GOALS

The College will develop goals to reduce the waste stream and increase the waste diversion of readily recyclable and compostable materials. Citrus College currently diverts roughly 75 percent of its waste stream from the landfill and would like to increase this diversion rate by employing additional waste reduction strategies. The Sustainability Committee has adopted the following diversion goal for this plan: *Continue to implement the recycling program, expand it to include all sectors of recycling and waste reduction to landfills, comply with recycling program requirements of AB-341, and strive to exceed the statewide landfill diversion goal of 75 percent by 2020.* This will require the College to continue with the very successful program in place and increase the amount and type of waste being diverted, recycled and composted.

4.8.2 MAXIMIZE PROGRAMS OFFERED BY CONTRACTED WASTE HAULER

Citrus College will maximize programs offered by its contracted waste haulers. These may include recycling programs, and green waste (such as yard trimmings) or food waste composting. Additionally, the College already performs construction and demolition (C&D) recycling. Since there may be variations in programs offered by different haulers, Citrus College will evaluate the services offered by available haulers to best meet its sustainability goals and contract with a hauler that provides the desired services at favorable and viable cost. It may be necessary for the College to employ multiple waste haulers in order to receive all the different desired services.

4.8.3 IMPROVE EXISTING RECYCLING PROGRAMS

As stated, Citrus College has a very successful recycling program in place, resulting in a +75 percent diversion rate. The current program is based on sorting of recyclables at the on-campus central Recycling Center. The Recycling Center is located in the maintenance yard at the south end of the campus. This diversion rate has been increased by implementing the “source-separated” program of providing separate bins around the campus to facilitate source separation of paper, plastic, bottles, cans and hazardous waste such as batteries. This program improves diversion rates and also facilitates the proper disposal of materials. A source-separated program will be continued.

4.8.4 COLLECT AND SELL ALL RECYCLABLE MATERIAL

Recyclable products that are gathered throughout campus will be collected and maintained at the Recycling Center. Recycling Center products will be held for pick-up by approved carriers for distribution to area recycling facilities such as Material Recovery Facilities (MRF). Fees received for recycled materials will be provided to the Finance and Administrative Services department for proper recording on the District’s financial records.

4.8.5 GREEN WASTE AND FOOD WASTE COMPOSTING

Citrus College can further reduce its waste stream by implementing green waste and food waste composting. This can be done through on-site composting or by using services provided by a local waste hauler. The Sustainability Committee will explore alternatives for on-site composting or third-party composting services such as with a contracted food service provider or through a waste hauler.

4.8.6 ADOPT CONSTRUCTION AND DEMOLITION (C&D) RECYCLING

Citrus College will recycle all viable possible construction waste that is produced by construction demolition. The College will require that all viable means be demonstrated by contractors for the purpose of recycling construction waste including concrete, concrete block and metal products. This program has been a very successful addition to the Citrus College sustainability efforts and will continue for the College’s construction projects.

4.9 GREEN PURCHASING

Citrus College has adopted sustainable purchasing policies to meet the goals of environmental, economic and socially conscious outcomes. By adopting a sustainable policy, the College is able to use its market power to influence the supply chain in becoming more sustainable. This is further described in the following sections.

4.9.1 GREEN PURCHASING PRACTICES

Citrus College strives to purchase materials and equipment that are recyclable, packaged in recycled materials and sustainable. Standards have been established for the purchasing of office products, paper products, custodial and cleaning materials, as well as other products that produce long-term efficiency savings and reduce the harmful impact of pollution and waste. The College custodial services team uses biodegradable cleaning

materials and the College has greatly reduced the use of chemicals that may be harmful to the environment and the health of those who are exposed to such chemicals.

4.9.2 SOCIALLY RESPONSIBLE PROCUREMENT

Green sourcing is an additional best management practice that has been adopted by the Purchasing Department. Green sourcing is the practice of acquiring goods and services by way of the most efficient and environmentally friendly means. Purchasing will procure from viable local vendors first, receive products faster and have less environmental impact. By way of this practice, the life cycle of products is extended and the College receives a more value-added benefit for the dollar value invested. Citrus College will continue to engage economically viable and socially responsible procurement practices.

4.10 STUDENT AND CURRICULUM DEVELOPMENT

With the economics of environmental sustainability becoming increasingly important in all facets of society, the College has a responsibility to play a role in moving current and future generations toward a sustainable future.

By demonstrating social responsibility, sustainable development strategies and carbon management through the implementation of the Sustainability Plan, and encouraging the inclusion of sustainable content in courses, the College can play a key role in realizing the goals of this plan. By using the College-wide sustainable infrastructure as a pedagogical tool, amplification of holistic or systems thinking, and integration of sustainability into coursework when relevant, the College will advance the academic community toward desired educational outcomes for sustainable development.

Citrus College will strive to create learning opportunities for student involvement and encourage active sharing of current and evolving content to support the implementation of this plan. Through the Sustainability Plan initiatives, faculty, staff, administrators, the Board of Trustees, and students will have opportunities to collaborate, participate and serve as effective agents for positive change.

4.10.1 CREATE A SUB-COMMITTEE IN THE ACADEMIC SENATE DEVOTED TO SUSTAINABILITY

Citrus College will explore opportunities for creation of a faculty sub-committee specifically for the enhancement of curriculum development pertaining to sustainability.

4.10.2 UTILIZE DIFFERENT PATHWAYS TO INTEGRATE SUSTAINABILITY IN CURRICULUM

The Sustainability Plan will influence the inclusion of sustainable topics in many College venues. It is anticipated that the dialogue within and across instructional programs will result in the exploration and implementation of a variety of approaches, i.e., use of supplemental materials, assignments, work experience, service learning or, in some cases, curriculum integration. As actualization of sustainability content permeates, it is anticipated that many new and innovative methods, not yet considered, will emerge. Some areas of study, such as economics, other social sciences and career technical education may present clear links to sustainability, such as ethics and political science. It is believed that examples of sustainability and ecology in literature and mathematics can reach the respective courses, and assignments or projects in a course can have a sustainability theme to add another dimension. Citrus College science faculty have explored the use of this approach to incorporate

sustainability practices in curriculum design and field (outdoor laboratory) experience. As more success is realized, outcomes will be shared to encourage broader participation of colleagues as other faculty explore approaches customized to their discipline.

4.11 COLLEGE AND COMMUNITY OUTREACH & AWARENESS

The sustainability of a college is highly dependent on the actions of individual students, faculty and staff. While having energy efficient equipment, installing low-flow water devices, and providing separate bins for source separation of waste can make a college more sustainable, behavioral changes can have a large impact on the effectiveness of these projects. Additionally, it is important to maintain transparency and keep the community informed of the College's progress with sustainability plan implementation. This is hard work and contributions to the College's sustainability should be recognized. Citrus College will implement the following programs related to outreach and awareness.

4.11.1 EXPAND A WEBPAGE DEDICATED TO COLLEGE SUSTAINABILITY

Citrus College will explore an expanded webpage on its website, dedicated to spreading information about sustainability practices and the implementation of the Sustainability Plan. The website will serve as a publicity tool for sustainability events and student groups and as a coordination tool for conveying information to the local community about sustainability programs. This will be managed by student members of the Sustainability Committee, with administration oversight, and will be kept up-to-date with the latest developments and links to any public reports about College sustainability efforts.

4.11.2 HOLD MEETINGS, WORKSHOPS AND PRESENTATIONS

The Sustainability Committee will hold open meetings, workshops or presentations to allow members of the College community to stay informed about sustainability activities, ask questions and participate in decisions. Workshops and presentations will be well publicized and open to all, and they will be led by individuals who can knowledgeably field questions from the audience and efficiently facilitate the workshop process.

4.12 ESTABLISH A COMMITMENT TO CLIMATE ACTION

4.12.1 MAKE A COMMITMENT TO REDUCE GREENHOUSE GAS EMISSIONS (GHG)

Citrus College is committed to supporting the environment in a positive manner. By building upon the College's proven performance, Citrus College is positioned to continue to lead as a statewide role model in sustainability. Managing energy efficiency of the built environment will continue to support and reduce GHG. Citrus College, by way of supporting the CCC-IOU Partnership on the Management Team, will continue to share Best Management Practices and be a resource among higher education partners. The potential to support and build positive outcomes for global climate change is realized through the power of continued growth of sustainable practices for which Citrus College is a proven leader.

4.12.2 CREATE AND EXECUTE A CLIMATE ACTION PLAN WITH PRIORITIZED GREENHOUSE GAS REDUCTION MEASURES

As Citrus College grows over the next ten years and implements its 2020-2030 Educational and Facilities Master Plan, it is imperative to design and execute energy efficiency measures into the College's building systems. Energy efficiency, by way of eliminating waste, is the most effective means by which to reduce GHG. Citrus College will implement a design practice of engineering energy efficient buildings, thereby creating and complementing a Climate Action Plan for GHG reduction.

SECTION 5.**MEASURE AND REPORT PERFORMANCE**

As with any successful program, the ongoing progress and performance of Sustainability Plan activities will be *monitored and compared to goals and criteria*. This will require continuous participation of the Sustainability Committee, and other constituent group participants in the process. In order to communicate results and ensure transparency and accountability, the *results of the Sustainability Plan activities will be communicated to the larger College community on a periodic basis*.

The following section describes the process for measuring and reporting sustainability activities and achievements.

5.1 MEASURING PERFORMANCE

In order to monitor Citrus College's progress towards its sustainability goals, the Sustainability Committee plans to collect information on the following key metrics at regular intervals as described below. Metrics for progress measurement will be tied to the criteria defined for each goal established in Section 3 of the Sustainability Plan.

Goal Number	Area of Sustainability	Performance Metric	Measurement Frequency
1	Economic Return on Investment	Evaluate the return on investment of capital improvements in sustainability based on life-cycle Net Present Value (NPV). For each proposed capital improvement project, the College will perform a Net Present Value calculation that accounts for initial costs, any financing costs, cost savings, appropriate discount rate and effective life of improvement. Projects with a positive NPV will be given priority for implementation.	With each proposed Capital Improvement Project
2	Energy Efficiency	Reduce overall energy consumption by 5 percent within three years. Monitor total annual electricity and natural gas at the College main meters. Establish a baseline from 2012 usage. Establish new reduction goals after three years based on planned activities and additional opportunities.	Establish baseline with 2012 usage. Monitor annually.
3	The Built Environment	Construct all major capital projects to meet a LEED Silver "equivalent" standard, with goals to reduce energy and water use, wastewater discharges, and sustainable landscaping	With each major Capital Improvement Project

		practices. Require this standard with all design and construction contracts and enlist the project architect to complete a LEED checklist that demonstrates Silver rating and to verify that selected measures are implemented. This requirement does not mandate registration or project certification by the USGBC or LEED, but uses that process as an “equivalent” self-certification of projects.	
4	Technology Utilization	Continue to take advantage of new technologies in all areas of waste reduction, energy usage and sustainable culture. The Citrus College Sustainability Committee will review new technology options for construction projects, operations and maintenance as they relate to sustainability. The staff will enlist assistance as needed for this effort from SCE, SCG and the CCC-IOU Energy Efficiency Partnership.	Initial evaluation in 2020. Review annually.
5	Renewable Energy Use	Install or procure electricity from viable renewable sources that comply with Title 24, CCR, and with SCE interconnection or power delivery protocols. Meter these power output sources with certified UL approved metering devices and collect data for verification.	Ongoing
6	Leadership and Champions	Identify College community members who will be enthusiastic, involved, reasonable, and responsible to lead the College in its sustainability efforts and to set the example for generations to come. This will be accomplished by maintaining the Citrus College Sustainability Committee as a permanent sub-committee of the Physical Resources Committee and by actively recruiting interested and motivated students, faculty, and staff into its membership.	Ongoing
7	Waste Diversion and Management	Continue to improve the recycling program, expand it to include all sectors of recycling and waste diversion to landfills, comply with recycling program requirements of AB-341, and strive to meet the statewide landfill diversion goal of >75 percent by 2020. With 2012 as a baseline year, increase diversion to achieve a goal of >80 percent by 2030.	Monitor annually until 2030.

8	Transportation Efficiency	Reduce the reliance of students, faculty and staff on single occupancy vehicle commutes by 5 percent within the next five years. Encourage the utilization of public bus and rail transportation, carpooling, and bicycling to campus. Conduct annual surveys to determine total Vehicle Miles Traveled reduced and/or single occupancy vehicles reduced.	Baseline measurement at end of 2012. Monitor annually for five years.
9	Communication and Education	Develop and implement a program to raise awareness in the College community, which will inspire behavioral changes to enhance sustainability.	Ongoing
10	College and Community Involvement	Increase community awareness and support of College sustainability efforts through the use of targeted media.	Ongoing
11	Curriculum	When appropriate to a program of study, encourage the inclusion of sustainability content (social responsibility, sustainable development strategies, and carbon management) into curriculum and/or instructional material.	Ongoing
12	Continuous Improvement	Improve existing sustainability efforts by analyzing and auditing current activities to identify changes to processes and to increase effectiveness and to develop future goals. Analysis of energy and water usage and solid waste management programs will be completed at the end of each fiscal year.	Annually
13	Greenhouse Gas Reduction	Continue to reduce Greenhouse Gas (GHG) emissions through the implementation of the Citrus College Sustainability Plan. Consider a future Climate Action Planning process to meet AB-32 requirements. Align goals with the California Community Colleges Chancellor's Office guidelines.	Annually
14	Avoided Costs	Tabulate total dollars saved as a result of previous sustainability actions.	Annually

5.2 REPORTING PERFORMANCE

In order to keep the College community informed of the progress of the Sustainability Plan activities, the Citrus College Sustainability Committee will present an update directly to the Physical Resources Committee at each of its standing meetings. Additionally, the Sustainability Committee will summarize activities, metrics, and progress towards goals in an annual report to the Board of Trustees at a public meeting. All reports and presentations will be available publicly on the Citrus College Sustainability webpage. The Sustainability webpage will be developed by the Committee and maintained by the Office of the Vice President of Finance and Administrative Services.

The Citrus College Sustainability Committee will continue to meet quarterly to review progress with Plan implementation and to discuss changes or new initiatives.

5.2.1 COLLEGE WORKSHOPS

The Citrus College Sustainability Committee will hold periodic meetings or workshops open to all members of the College community throughout the planning and implementation phases of the Plan. This process is designed to encourage a participatory dialogue where information is provided to the College and feedback is solicited and incorporated into the plan, as feasible.

SECTION 6.

APPENDICES

APPENDIX 1: CITRUS COLLEGE SUSTAINABILITY COMMITTEE

APPENDIX 2: IMPLEMENTATION PROGRAMS AND PLANNING CHECKLIST

APPENDIX 1

CITRUS COLLEGE SUSTAINABILITY COMMITTEE

Fred Diamond, Chair, Director of Facilities and Construction
Claudette Elias Dain, Vice President, Finance and Administrative Services
Leigh Buchwald, Network & Telecommunications Systems Supervisor
Ernie Loera, Associate Director of Facilities
Shawn Jones, Director of Business Services
Mike Ramos, Interim Environmental Health & Safety Supervisor
Jeremy Clark, Faculty
Dr. Arvid Spor, Vice President of Academic Affairs
Dan Vilter, Performing Arts Technical Supervisor
Fernando Flores, Student
Tiina Mittler, Director of the Haugh Performing Arts Center
Jorge Cortez, Transportation/Warehouse Coordinator
David Colindres, Buyer
Julian (Trip) Horton, Physical Education Athletics Facilities Supervisor
Phil Hawkins, Interim Maintenance Supervisor
Doug Schultz, Communications Supervisor
Berta De Los Santos, Facilities Operations Assistant
Dr. Maryann Tolano-Leveque, Dean of Students

APPENDIX 2

IMPLEMENTATION PROGRAMS AND PLANNING CHECKLIST

An Implementation Programs and Planning Checklist will be developed by the committee. The checklist will reflect the Programs and Projects identified in Section 4 of the Sustainability Plan. For each selected program or project, the priority, current status, associated plan goal, target completion date, and responsibility assignments will be indicated on the Checklist Summary Report. The estimated cost for each program or project is to be determined based on additional work by the Sustainability Committee.

The Implementation Programs and Planning Checklist will be used by the Citrus College Sustainability Committee to manage the implementation of the Sustainability Plan.