2020 Sustainability Presentation

Los Rios Community College District

October 14, 2020

Agenda:

- Los Rios Sustainability Program Policies and Goals
- Summary of Programs/Initiatives
  - Prop 39
  - Renewable Energy and Solar
  - New Construction
- Campus Sustainability Programs
- Future Efforts

Los Rios Sustainability Program Policies and Goals

- **Policies**
  - State of California
    - Assembly Bills: AB-32
    - Executive Orders
      - S-12-04
      - B-18-12

Los Rios Sustainability Program Policies and Goals: By California Community College Board of Governors:

	GOALS 2025	GOALS 2030
1	Reduce greenhouse gas emission to **30** percent below 1990 levels.	**40%**
2	Increase renewable energy consumption to **25** percent.	**50%**
3	**25** percent of fleet vehicles are zero-emission vehicles.	**50%**
4	**50** percent of all new buildings and major renovations will be constructed as Zero Net Energy.	**100%**
5	**50** percent of all new buildings and major renovations will achieve at least a Leadership in Energy and Environmental Design (LEED) “Silver” or equivalent rating.	**100%**
6	Increase procurement of sustainable products and services by **20** percent compared to current levels.	**25%**
7	Reduce municipal solid waste by **25** percent compared to current levels.	**50%**

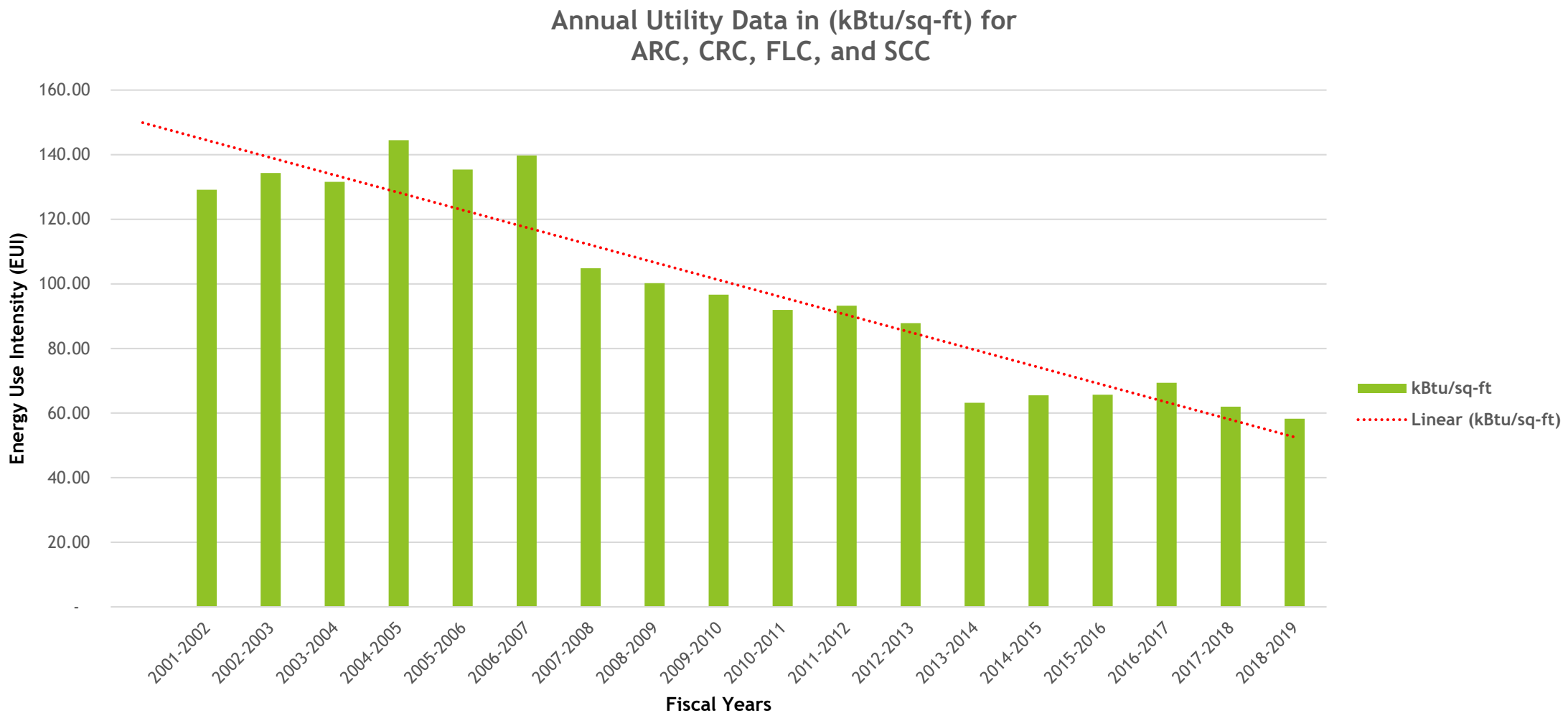
Methodology
For Determining Sustainability Projects

Source: http://macaulay.cuny.edu/eportfolios/akurry/files/2011/12/SDspheres.jpg

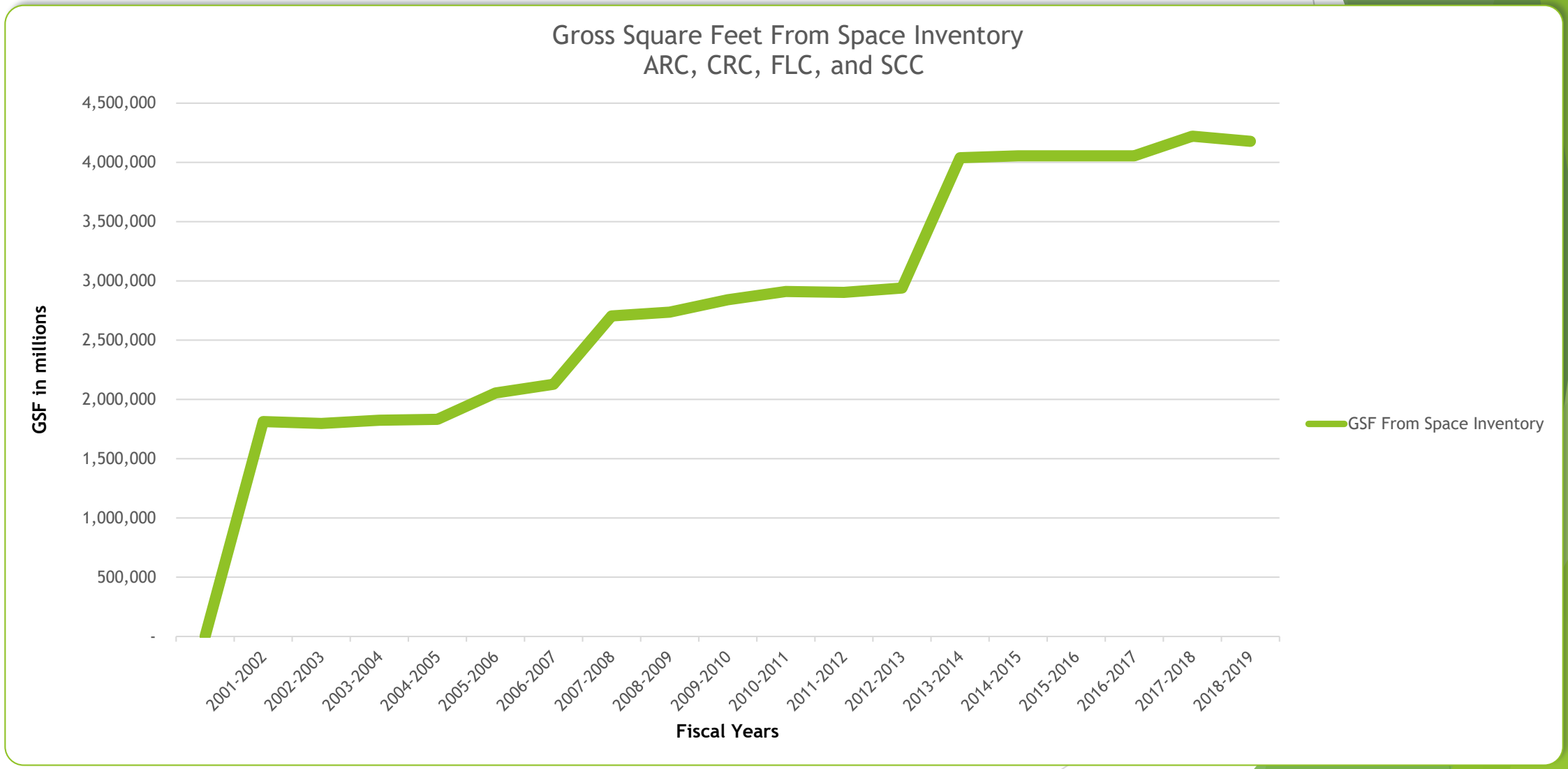
Summary of Programs/Initiatives

- Prop 39
  - Program started in 2013, and all projects were completed in 2019
    - Projects consisted of:
      - Lighting controls
      - LED Lighting
      - HVAC Controls
    - 51 projects costing $8.3 million

Energy Reduction Graph



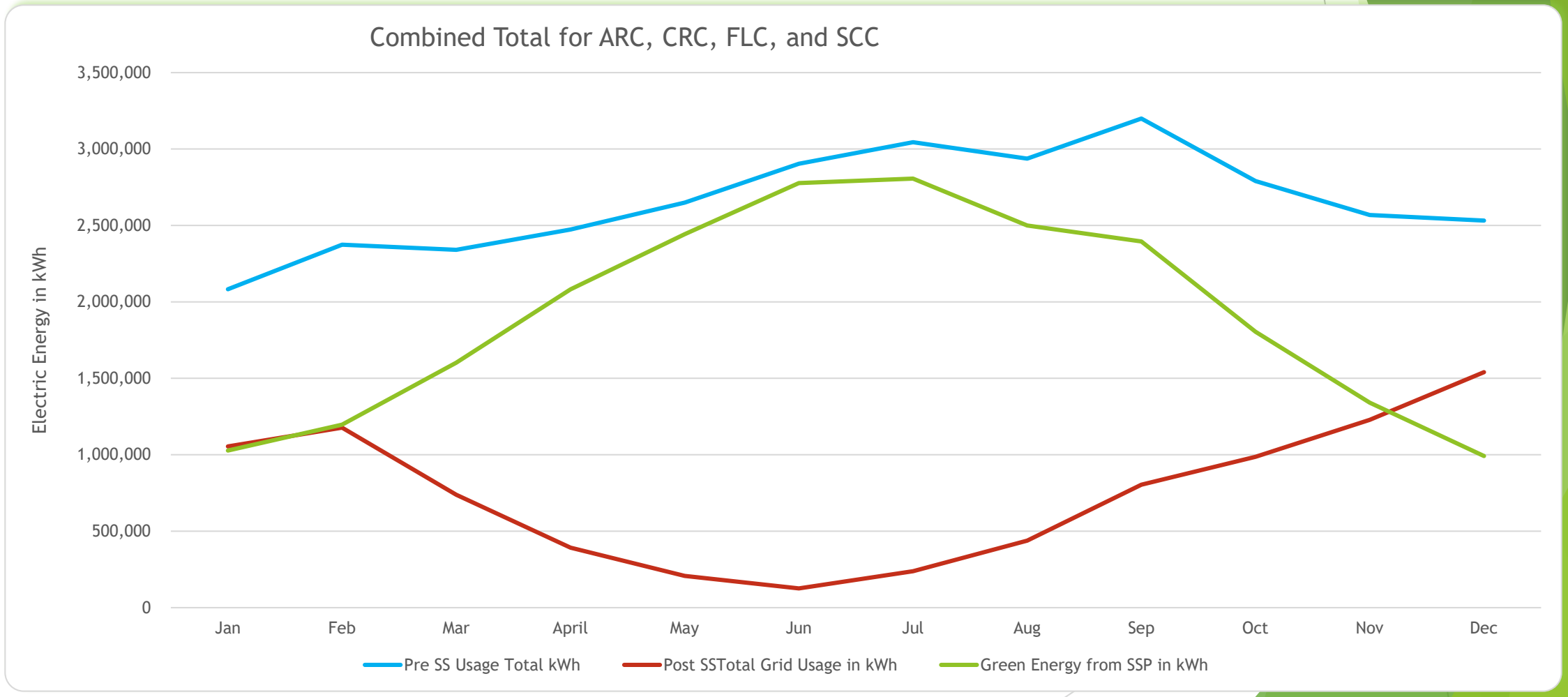
Gross Square Footage



Renewable Energy and SMUD's SolarShares Program

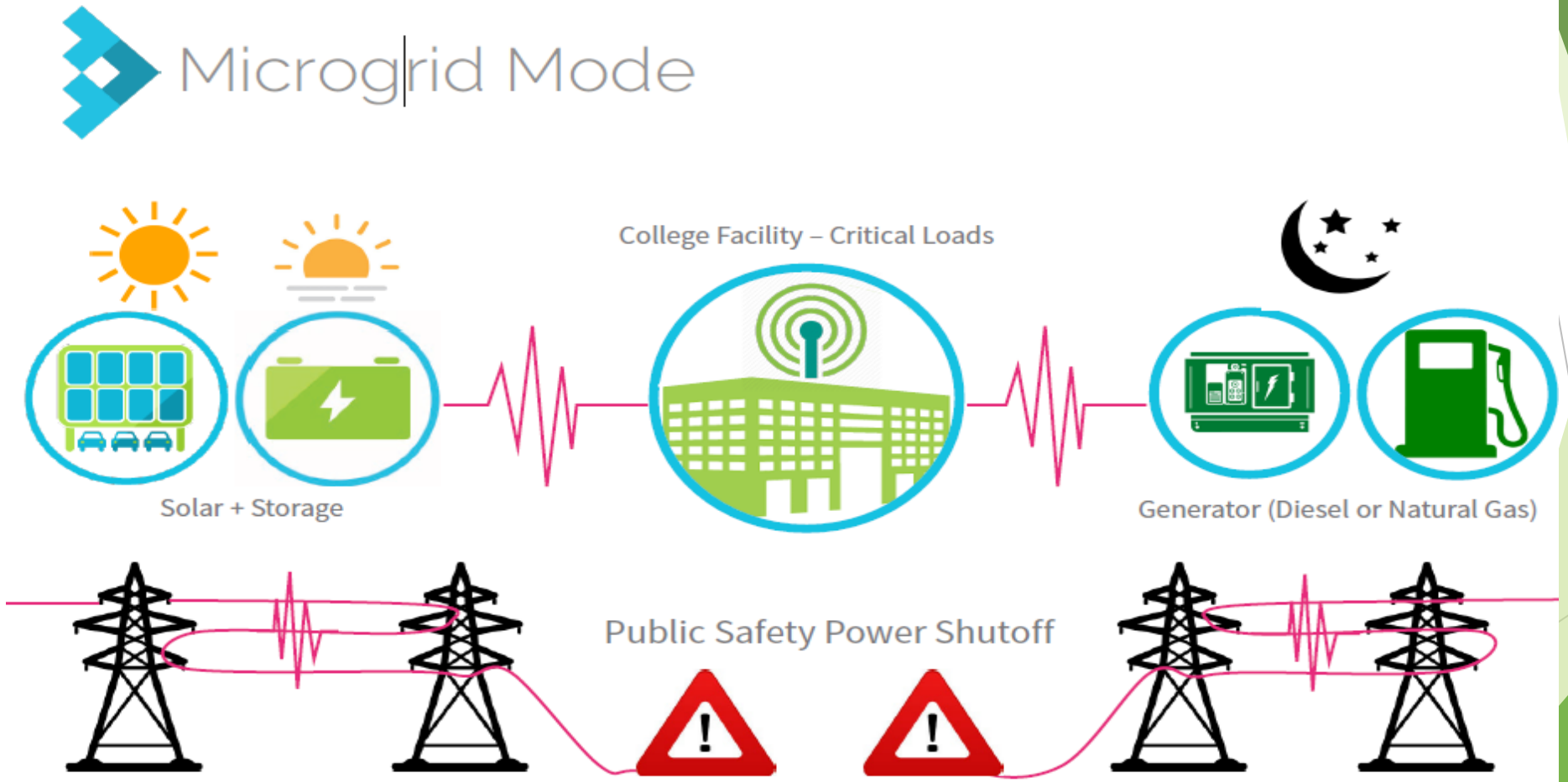
- Program started in 2018
- Fixed contract amount is 28,379,532 kWh/year for 20 years
- Equates to approximately **65%** of total District-wide green electricity usage in kWh
- Considering total energy both (electricity and gas) this percentage equates to approximately **40%** carbon free green energy
- SolarShares Program created a reduction in Green House Gas (GHG) emissions equivalent to 8,075 metric tons of carbon

Four Main Campus' Electric Energy Use Totals vs SolarShares



EDC Solar Project

Microgrid Concept



New Construction Sustainability Efforts

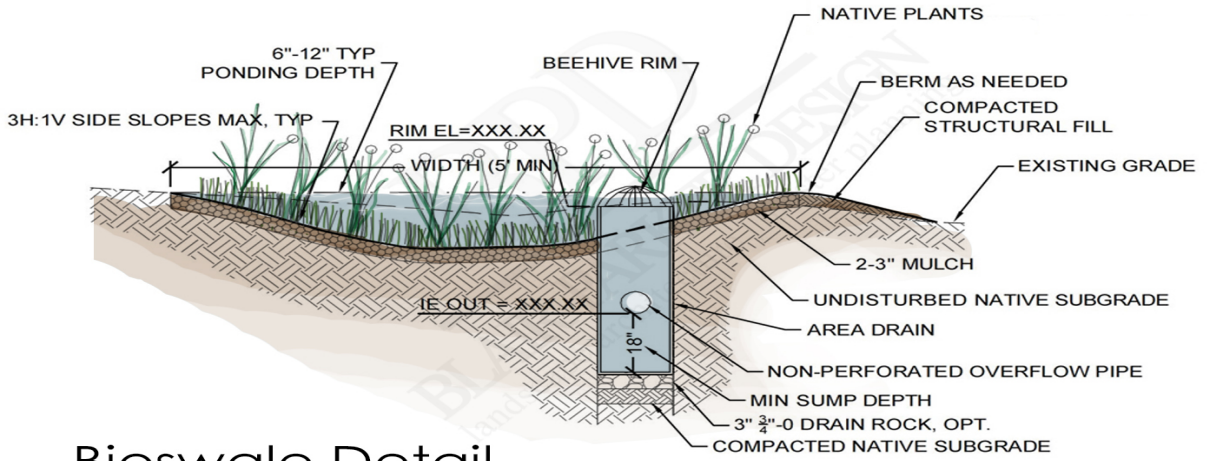
LEED Silver Certified minimum requirement

1. SCC Lillard Hall est. Gold Certified
2. ARC Tech Ed - Silver Certified
3. EGC II - Silver Certified
4. Natomas Center II & III - Silver Certified
5. FLC 2.1 - Silver Certified
6. Rancho Cordova Center II - Silver Certified
7. CRC Auto Tech - Silver equivalent

- Current status of BOG resolution is 85% LEED Certified

New construction continued:

- Building Metering
- Electric Vehicle Charging Stations
- Water Conservation
  - Low flow fixtures
  - Bottle filling stations
  - Weather-Based Irrigation Systems
  - Native and Drought Plants
  - Water Recapture/Recycling systems
  - Bioswales
- Solar Ready
- ZNE ready
  - EGC II (all electric)
  - Natomas Center II & III (all electric)
  - ARC Corp Yard (all electric)
  - Rancho Cordova II (considering all electric)



Bioswale Detail

ARC
List of Sustainability Efforts

- Weed Steamer
- Sustainability Improvement Plan, 2020 – 2024
- Water Bottle Refill Stations

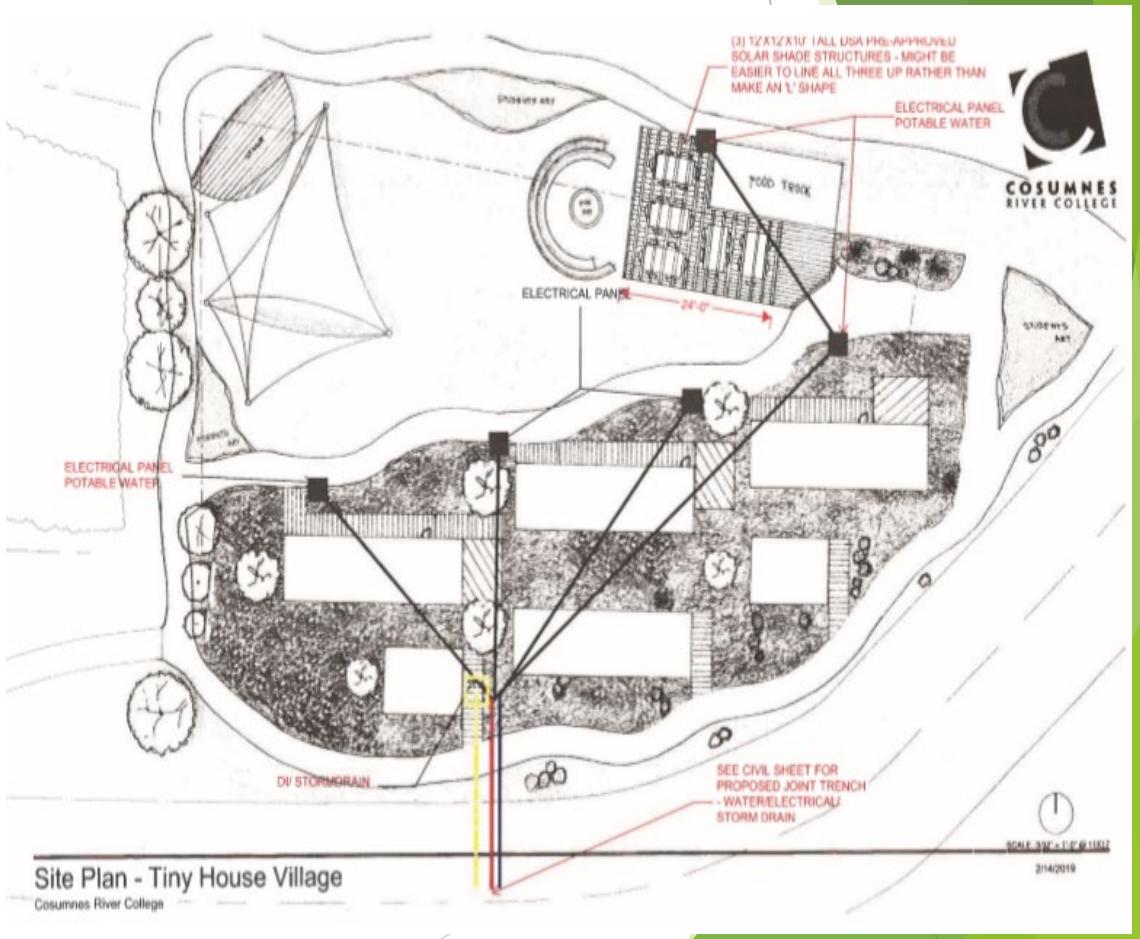
ARC
Status of Green Clean Goals

- On-Site Generation of Cleaning Chemicals, currently using at:
  - Davies Hall
  - LRC
  - STEM
- Microfiber Mopping & Cleaning
  - Working towards 100%
- Zero Waste Custodial Program
  - Restroom Paper Products that are 50% Recyclable
- Custodial Employee Ergonomics
  - Improved Custodial Carts
  - Assessing replacement of any flooring that requires stripping/waxing
- Green Product
  - 85% of ARC products have “Green Seal”; 15% other harsh chemicals
- FM/Campus Collaboration of Sustainable Building Materials
  - Native Planting
  - Flow Meter
  - Low Water Use Landscape

COSUMNES RIVER COLLEGE
LOS RIOS COMMUNITY COLLEGE DISTRICT

CRC Tiny House Village (THV)

- Unique collaboration Architecture, Architectural Design, Construction, and Horticulture
- College Land - Sustainable Living Collaborative – design & construct THV with sustainable irrigation and landscaping
- Fall 2019, Tiny House Village idea emerged; student plans guided the final plans submitted to DSA in August
- Collaboration/Resources: Prop 39 funds; SMUD; Sac Valley Conservancy; FM/Architect (Wood Rodgers); Teichert Construction; Stonebridge Properties; invaluable support college/district Foundation
- Innovation Happens Here event – November 5, 2020



COSUMNES RIVER COLLEGE
LOS RIOS COMMUNITY COLLEGE DISTRICT

CRC Phase One: 2021-'22

- **On-site generation of cleaning chemicals (OSG)**
  - Reduce exposure to hazardous chemicals
  - Improve indoor air quality
  - Reduce carbon footprint
  - Help in reaching district goal on zero waste initiatives
  - COVID 19 effective
- **Nanoseptic technology**
  - NanoSeptic technology kills pathogens using a photocatalytic reaction with embedded titanium dioxide nanoparticles. In plain language, it can provide a self-disinfecting surface for high traffic areas by using UV light. The technology uses a septic coating on self-adhesive plastic sheets that self-clean every time they're touched.
- **100% implementation by start of 2022-'23school year**

Folsom Lake College
Sustainability Spotlight

- Completion of Electric Vehicle charging stations
- Solar panel project at El Dorado Center
- Replacement of fluorescent light bulbs with LEDs
- In partnership with Pepsi vendor, work to reduce the sale of single use plastic bottles on campus
  - Continued recycle and diversion efforts (paper, wood, cardboard, food waste, light bulbs, batteries, ink cartridges, and water-bottle filing stations)

Folsom Lake College
Green Cleaning Implementation

2019-2020 Achievements:

- Continued use of low-water and non-chemical equipment and technology
  - Purchase of additional T-3 eco auto-scrubber

2020-2021 Goals

- Continued use of on-site self-generating GenEon cleaning solution
- Electrostatic technology
- Rapid-Response System

Sacramento City College
Sustainability Spotlight

- College hired a temporary classified employee to serve as our Sustainability Projects Assistant
- Accomplishments:
  - Creation of REGENERATE@SCC sustainability group
  - Integration of sustainability into educational plans and curriculum
  - Ongoing workshops and trainings (The Impacts of Climate Change and Sustainability started Jan 16, 2020) Next: April 17 or 24
  - Waste compliance plan with State of Federal regulations. We are working with requirements from waste haulers in 4 different counties (Sacramento, West Sac., City of Davis and UCD and Sac County)
  - Implementation of 3-bin waste system with signage
  - SCC STARS and AASHE membership
- Goals:
  - Development of a Vision Plan and Statement
  - Completion of Sustainability Master Plan for SCC
  - Development of content for REGENERATE@SCC'S social media accounts
  - Provide virtual connection between SCC Operations and FM to assist the Director of Sustainability in developing baseline metrics for SCC for STARS

SACRAMENTO CITY COLLEGE
EST. 1916

Sacramento City College
Green Cleaning Implementation

2019-2020 Achievements:

- Implementation of on-site generation of environmentally safe & healthy cleaning and sanitizing products in Learning Resource Center
- Developed standard operating procedures for Custodians
- Micro-fiber cloth and ergonomic mopping at SCC Main campus and Centers. Reduced water use and improves cleaning outcomes
- Set expectations to campus community of outcomes of moving to green cleaning (e.g. change in smells left from product).

2020-2021 Goals

- Purchase of all systems required to maintain green cleaning system
- Full implementation of green cleaning on all SCC main campus and Centers.
- Ongoing training of custodial staff on new process
- Ongoing design and installation of signage to educate the community

Future Efforts

- Continue to focus on and to actively pursue and exceed BOG resolutions goals 2025 and 2030
- Continue and expand conservation efforts in all areas
- Seek funding for additional emerging technologies, and energy efficiency programs for existing buildings to reduce energy usage and GHG emissions
- Increase renewable energy generation and participate in future programs similar to SMUD's SolarShares Program

Questions?