

# 2015-2020 STRATEGIC ENERGY PLAN

## COUNTY OF SAN DIEGO



# { 2015-2020 ENERGY STRATEGY }

The County of San Diego has two distinct components related to energy and sustainability:

## COUNTY OPERATIONS ENERGY STRATEGY }

The main objectives are to ensure sustainability practices are assimilated into the organization and to minimize utility (water and energy) consumption/costs. Operations specifically applies to County-owned facilities, leased facilities, and County-owned vehicles.

## COUNTY COMMUNITY ENERGY STRATEGY }

The main objectives are to encourage residents through outreach and education to reduce energy and water consumption, and minimize greenhouse gas emissions for healthier and more sustainable communities. Community specifically applies to regional program development and management with specific emphasis on the unincorporated area where the County has land use jurisdiction and for coordination with federal, state and local entities.

**STRATEGIC INITIATIVE ALIGNMENT }** The County of San Diego is committed to a region that is Building Better Health, Living Safely and Thriving. The strategies defined in this plan have been crafted to closely align with the Strategic Initiatives defined in the County's [2015-2020 Strategic Plan](#).

# { COUNTY OPERATIONS ENERGY STRATEGY }

## OBJECTIVES }

There are two main energy and sustainability objectives for County Operations :

- Continue to assimilate sustainable practices throughout the organization
- Minimize utility consumption and costs

## KEY FOCUS AREAS }

The County aims to accomplish its objectives in the following key focus areas:

1. Energy Use
2. Water Use
3. Cost Avoidance
4. Transportation
5. Green Buildings and Infrastructure
6. Monitoring and Communication

# { FOCUS AREA } ENERGY USE}

## GOAL}

Reduce Energy Use Intensity by 10 percent comparing data from fiscal year 2019-2020 against baseline data from fiscal year 2014-2015

## Performance Metrics }

Energy Use Intensity = (kWh + Therms or KBTU) / gross square feet

## Approaches }

- Continually assess existing facilities to find opportunities to improve efficiency
- Take advantage of water and energy audits, rebates and incentives offered by local utilities
- Implement identified energy efficiency improvement/retrofit projects
- Perform whole building energy modeling to identify opportunities for facility system synergies
- Perform retro-commissioning to ensure facility equipment is tuned and running as designed
- Analyze Countywide Building Automation System data to maximize equipment efficiencies and system schedules
- Implement a County demand response program to curtail energy use during periods of high energy demand
- Evaluate new technologies that can help reduce energy consumption
- Evaluate behavioral and process changes that can help reduce energy consumption

# { FOCUS AREA } WATER USE

## GOAL

Reduce potable water consumption by 25 percent comparing data from fiscal year 2019-2020 against baseline data from fiscal year 2013-14

## Performance Metrics

Measure total potable water consumption in hundred cubic feet (HCF)

## Approaches

- Conduct water audits at key county facilities to identify potential plumbing and irrigation retrofits
- Implement water efficiency improvement/ equipment retrofit projects
- Perform retro-commissioning to ensure facility equipment is tuned and running as designed
- Analyze Countywide Building Automation System data to maximize equipment efficiencies and system schedules
- Explore the feasibility of installing water recycling /reuse systems at county facilities
- Expand the use of cooling tower treatment technology at facilities with central plants
- Where feasible, replacing landscaping with artificial turf, mulch or xeriscape
- Expand the use of recycled water and purple pipe to reduce potable water use where feasible
- Evaluate new technologies that can help reduce water consumption
- Continue to use locally produced compost and mulch to reduce water consumption and improve plant health
- Explore potential to use greywater to reduce potable water use
- Transition to standardized satellite based “smart” irrigation controllers at county facilities

# { FOCUS AREA } COST AVOIDANCE}

## GOAL}

Realize cost avoidance and savings through energy and water savings opportunities and new technology

## Performance Metrics}

Cost savings by project in dollars and percent saved

## Approaches}

- Continue to procure the County’s energy via the Direct Access contract and compare savings to what it would cost if bought through the local utility company
- Explore the feasibility of implementing energy/battery storage solutions to reduce demand charges
- Explore the feasibility of implementing distributed generation systems such as photovoltaics and fuel cells to ensure long term price stability
- Install additional water sub-meters to provide granularity and a deeper understanding of water use and costs for facilities
- Work with local water districts to ensure accurate metering of county water and sewer accounts and revise rates as appropriate to reflect actual use
- Engage in Local Government Partnership Agreements with the utility company to offset the costs of performing energy analysis, feasibility studies and provide sustainability program management
- Take advantage of loans, grants, and rebate and incentive programs offered by the Utilities, the California Public Utilities Commission, the California Energy Commission and others

# { FOCUS AREA } TRANSPORTATION

## GOAL

Realize a 10 percent average reduction in greenhouse gas emissions for all County owned vehicles comparing data from 2020 against baseline data from 2015

## Performance Metrics

Greenhouse-gas emissions savings in carbon dioxide equivalent (CO<sub>2</sub>e)

## Approaches

- Replace vehicles with more fuel efficient models
- Explore the feasibility of replacing County owned vehicles with alternate fuel models such as electric vehicles, compressed natural gas, fuel cells, biodiesel, ethanol and propane as well as deploying infrastructure/fueling/charging stations to support them
- Increase the use of departmental and fleet motor pools to help reduce the number of underutilized vehicles
- Expand the number of vehicles receiving mobile maintenance to reduce vehicle maintenance time and staff time associated with transporting vehicles to central maintenance shops
- Work with SANDAG and other partners to expand transportation programs available to county staff

# { FOCUS AREA } GREEN BUILDINGS AND INFRASTRUCTURE }

## GOAL }

Improve the sustainability of operations by reducing and recycling resources, and using environmentally friendly practices in maintenance and new construction

## Performance Metrics }

Individual site and project achievements

## Approaches }

- Explore the use of renewable energy at new and existing facilities
- Require a zero net energy design concept for new construction projects where feasible
- Analyze the potential of key existing facilities to achieve zero net energy capability
- Achieve a LEED rating of gold or higher for all new construction where feasible
- Develop a LEED Existing Building Operations Maintenance program that establishes procedures, policies and training for conducting sustainable operations in existing facilities
- Explore the feasibility of installing electric vehicle charging stations for public use at additional County facilities
- Improve the waste diversion rate in County operations including fleet, facility operations and construction projects
- Train appropriate County staff on California energy codes and sustainability
- Implement water conservation measures to reduce reliance on potable water for irrigation, cooling towers and interior plumbing where feasible



# { FOCUS AREA } MONITORING AND COMMUNICATION }

## GOAL }

Track metrics, measure progress and communicate on key energy, water, waste and emissions initiatives

## Performance Metrics }

Publishing the annual Strategic Energy Plan progress report on the internet

## Approaches }

- Provide an annual status/progress report to the Board and the public on Strategic Energy Plan accomplishments
- Report annual greenhouse gas data for County Operations to a climate data tracking agency
- Benchmark all new facilities over 5,000 square feet in Energy Star Portfolio Manager and use data to inform future opportunities
- Track improvements in building performance where significant retrofits are implemented
- Apply for relevant National Association of Counties, California State Association of Counties, San Diego Tax Payer, Institute for Local Government Beacon and other recognition programs
- Participate in educational events such as Earth Day, Lighting Fairs, Water Conservation Events and Facility/Energy conferences
- Provide opportunities for county employees to learn and access information about energy, sustainability and water conservation opportunities they can implement at their own homes

# { COUNTY COMMUNITY ENERGY STRATEGY }

## OBJECTIVES }

The main objectives for the unincorporated area of the County include:

- Reduce energy and water consumption
- Minimize greenhouse gas emissions for healthier and more sustainable communities

## KEY FOCUS AREAS }

The County aims to accomplish its objectives in the following key focus areas:

1. Reduce Energy and Water Consumption
2. Promote Renewable Energy
3. Transportation
4. Education and Outreach Programs
5. Regional Collaboration
6. Climate Action Planning

{ FOCUS }  
 { AREA } REDUCE ENERGY AND WATER CONSUMPTION }

GOAL }

Reduce per capita energy use in the County communities by addressing energy efficiency in new construction, existing buildings, and water use

Performance Metrics }

Report-out on building permit types and landscape plans issued, training sessions attended, track per capita energy use reductions

Approaches }

- Continue to apply County and State building codes which set requirements for energy efficiency construction and water efficient fixtures
- Promote existing County Green Building Code program which exceeds building code requirements
- Continue to evaluate and support implementation of drought reduction measures
- Work with SDG&E on programs to educate County residents on energy efficiency retrofits
- Encourage water conservation through the use of appropriate plantings, compost and mulch, greywater and rainwater harvesting
- Train staff in zero-net energy and other sustainability concepts

{ FOCUS AREA } PROMOTE RENEWABLE ENERGY }

GOAL }

Facilitate development and use of renewable energy that is compatible with natural resources and community character

Performance Metrics }

Renewable energy project permits issued and estimated energy generation, number of PACE program participants

Approaches }

- Establish a Comprehensive Renewable Energy Plan per Board of Supervisors direction that evaluates the application of a mix of policies, programs and best practices to encourage the development of a local renewable energy market and enhancing the regional economy
- Continue to apply existing County programs to streamline and promote the use of roof-top solar
- Implement the recently adopted wind energy and solar ordinances which provide streamlined permitting procedures
- Implement and promote the County Property Accessed Clean Energy (PACE) Program

# { FOCUS AREA } TRANSPORTATION }

## GOAL }

Reduce demand for fossil fuel consumption and address vehicle emissions by reducing vehicle miles traveled and promoting alternative fuel vehicles

## Performance Metrics }

Permits issued within FBC areas, number of new homes completed that are EV and solar ready

## Approaches }

- Implement existing Form Based Codes (FBCs) and consider the establishment of new FBC areas which promote compact and walkable developments
- Investigate opportunities to collaborate with SANDAG to establish a transportation demand management program that can be applied to development projects
- Implement County requirements for Electric Vehicle (EV) and solar readiness in new construction for SFRs
- Utilize Parking Ordinance provisions encouraging incorporation of EV pedestals and infrastructure as part of development projects
- Continue working with County energy partners in developing programs to promote EV and transit use
- Utilize existing and future Active Transportation Program (ATP) grants for improvements in unincorporated communities
- Continue to solicit opportunities for Safe Routes to School Program grants

# { FOCUS AREA } EDUCATION AND OUTREACH PROGRAMS }

## GOAL}

Participate in County outreach and educational events promoting energy efficiency and sustainability practices within County communities while collaborating with County partners.

## Performance Metrics}

Number of referrals to SDG&E through outreach events

## Approaches}

- As part of the County participation in the Local Government Partnership, conduct outreach programs informing County residents of energy efficiency and sustainability practices
- Continue coordinating with SDG&E on additional programs to educate County residents on local energy conservation and efficiency efforts
- Participate in informative events such as fairs and Facility/Energy conferences
- Encourage food waste prevention and food donation efforts through the Live Well San Diego Food Systems Working Group and partnering organizations
- Continue outreach to key sectors in the food system to implement the Live Well San Diego Food Systems Working Group Action Plan
- Continue to conduct waste reduction, reuse, recycling and composting outreach for residents, businesses, schools and multifamily complexes

# { FOCUS AREA } REGIONAL COLLABORATION }

## GOAL }

Collaborate with regional partners in development of programs and policies which would have a positive effect on sustainability in County communities.

## Performance Metrics }

Number of collaboration efforts with County partners

## Approaches }

- Participate in the San Diego Regional Energy Partnership by coordinating with SDG&E on programs to enhance energy efficiency in the County
- Continue to attend meetings and participate in collaboration efforts with County energy partners; SANDAG, SDREP, SDG&E, San Diego Climate Collaborative (SDCC)
- Participate in APA , AEP, SDCC events and discussions on energy related topics
- Continue to exchange information and collaborate with local energy partners on best practices and lessons learned derived from local program efforts
- Continue efforts in the Live Well San Diego Food Systems Working Group to improve and strengthen the local food system through collaboration with the San Diego Food System Alliance and other partnering organizations
- Continue efforts through the Integrated Waste Management Local Task Forces to improve regional waste diversion, recycling, composting and anaerobic digestion infrastructure

{ FOCUS }  
{ AREA } CLIMATE ACTION PLANNING }

GOAL }

Develop GHG reduction targets and establish mitigation measures and adaptation strategies for unincorporated areas of the County

Performance Metrics }

Reporting of GHG emission reductions resulting from implementation of the Climate Action Plan

Approaches }

- Develop a new Climate Action Plan that establishes GHG emission reduction targets and mitigation measures and adaption strategies to address climate related impacts within the County
- Implement interim Climate Change measures and approaches assisting development projects in addressing CEQA related GHG impacts