

Sustainability Roadmap 2018-2019: Green Operations

Progress Report and Plan for Meeting
the Governor's Sustainability Goals
for California State Agencies

Health and Human Services Agency

Edmund G. Brown Jr., Governor



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Department of Rehabilitation

Sustainability Roadmap: Green Operations

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Acronyms

CALGREEN	California Green Building Code (Title 24, Part 11)
DGS	Department of General Services
EO	Executive Order
EPP	Environmentally Preferable Purchasing
GHGe	Greenhouse Gas Emissions
IEQ	Indoor Environmental Quality
LEED	Leadership in Energy and Environmental Design
MM	Management Memo
SAM	State Administrative Manual
SCM	State Contracting Manual

EXECUTIVE SUMMARY

The Governor's Office requested that departments owning or managing buildings prepare a Roadmap to Achieving Executive Orders B-18-12 and B-16-12 by December 16, 2013. Additional direction and guidance regarding meeting the state's sustainability goals has been provided through Executive Order B-30-15 and other policy documents. In response, the Department of Rehabilitation (DOR) has prepared this roadmap document to describe the status and steps to achieving the objectives, targets and requirements related to Green Operations.

The mission of the DOR is to work in partnership with consumers and other stakeholders to provide services and advocacy resulting in employment, independent living and equality for individuals with disabilities in California. Since it was established in 1963, the DOR has reported to the Health and Human Services Agency, with functions and responsibilities contained in Section 19000-19856 of the California Welfare and Institutions Code. The DOR is the designated state administrative unit responsible for the State's vocational rehabilitation program authorized by Federal Title IV of the Workforce Innovation and Opportunity Act (WIOA), which incorporates the Federal Rehabilitation Act of 1973, as amended.

The aforementioned laws were enacted to ensure all Americans have the opportunity to learn and develop skills, engage in productive work, make choices about their daily lives, and participate fully in community life. The DOR provides vocational counseling, guidance, and services to individuals with disabilities to prepare for, obtain and maintain employment, and to live independently in their communities.

The DOR provides vocational rehabilitation and independent living services to over 130,000 consumers annually through 84 field offices statewide. The DOR has over 1,800 employees with approximately 1,300 employees in the field providing direct services to individuals with disabilities.

The majority of DOR office locations are within 74 private leased office spaces and 9 DGS managed buildings. However, the DOR owns and manages the Orientation Center for the Blind (OCB), a three-building campus located in Albany, California. The OCB fosters independent living for the blind or visually impaired adults through an immersion program in a residential environment. This live-in, dorm style community operates 24 hours a day, 7 days a week.

The DOR has strived to work towards green operations through several continuing efforts in facility function and acquisition. The DOR has reduced greenhouse gas emissions by a total of 5.1% across all owned and leased facilities. High levels of indoor environmental quality are maintained at these offices through defined parameters in DGS Standard Lease language and through regulating usage of construction and cleaning materials, as well as furniture purchases, through a practice of environmentally preferable purchasing. Additional efforts for green operations are achieved through regular cleaning and maintenance of HVAC equipment and institution of integrated pest management at the OCB. Finally, the DOR utilizes several factors

in determining placement of the DOR's 74 privately leased offices and location efficiency scores are being integrated into placement decision to provide services with the greatest accessibility.

The DOR welcomes the challenge for green operation and will continue to evolve how the department functions to meet the growing need for cleaner and healthier operation.

Joe Xavier

Director

SUSTAINABILITY GOALS

The Governor has directed California State Agencies to demonstrate sustainable operations and to lead the way by implementing sustainability policies set by the state. Sustainability includes the following general initiatives:

- Greenhouse Gas Emissions Reductions
- Building Energy Efficiency and Conservation
- Indoor Environmental Quality (IEQ)
- Water Efficiency and Conservation
- Monitoring Based Building Commissioning (MBCx)
- Environmentally Preferable Purchasing (EPP)
- Financing for Sustainability
- Zero Emission Vehicle (ZEV) Fleet Purchases
- Electric Vehicle Charging Infrastructure
- Monitoring and Executive Oversight

The Governor and legislature have directed state agencies to prioritize sustainable operations. The orders and legislation relevant to operations described in this roadmap are:

Executive Order B-18-12

EO B-18-12 and the companion *Green Building Action Plan* require state agencies to reduce the environmental impacts of state operations by reducing greenhouse gas emissions, managing energy and water use, improving indoor air quality, generating onsite renewable energy when feasible, implementing environmentally preferable purchasing, and developing the infrastructure for electric vehicle charging stations at state facilities. The Green Building Action Plan also established two oversight groups, the staff level Sustainability Working Group and the executive level Sustainability Task Force, to ensure these measures are met.

Executive Order B-16-12

EO B-16-12 directs state agencies to integrate zero emission vehicles (ZEVs) into the state vehicle fleet. It also directs state agencies to develop the infrastructure to support increased public and private sector use of ZEVs. Specifically, it directs state agencies replacing fleet vehicles to replace at least ten percent with ZEVs, and by 2020 to purchase at least 25% replacement fleet as ZEVs.

Executive Order B-30-15

EO B-30-15 declared climate change to be a threat to the well-being, public health, natural resources, economy, and environment of California. It established a new interim statewide greenhouse gas emission reduction target of 40 percent below 1990 levels by 2030, and reaffirms California's intent to reduce greenhouse gas emissions to 80 percent below 1990

levels by 2050. To support these goals, this order requires numerous state agencies to develop plans and programs to reduce emissions.

Assembly Bill 4

Assembly Bill (AB) 4, was passed in 1989. The State Agency Buy Recycled Campaign statutes are in Public Contract Code Section 12153-12217. The intent of SABRC is to stimulate markets for materials diverted by California local government and agencies. It requires state agencies to purchase enough recycled content products to meet annual targets, report on purchases of recycled and non-recycled products, and submit plans for meeting the annual goals for purchasing recycled content products.

SGC Resolution on Location Efficiency

Location efficiency refers to the greenhouse gas emissions arising from the transportation choices of employees and visitors to a building as determined by the Smart Location Calculator. Adopted on December 6, 2016 the resolution directs members of the Strategic Growth Council to achieve a 10% improvement in the Smart Location Score of new leases compared to the average score of leased facilities in 2016.

State Administrative Manual & Management Memos

The following Management Memos (MM) currently impose requirements for green operations on the department under the Governor's executive authority:

- MM 15-04: Energy Use Reduction for New, Existing, and Leased Buildings
- MM 15-06: Building and Grounds Maintenance and Operation
- MM 14-05: Indoor Environmental Quality: New, Renovated, And Existing Buildings
- MM 14-07: Standard Operating Procedures For Energy Management In State Buildings

GREEN OPERATIONS

Greenhouse Gas (GHG) Emissions

State agencies are directed to take actions to reduce entity-wide greenhouse gas emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline.

The DOR has made reductions in natural gas, vehicle fuel and purchased electricity usage, as provided in other Sustainability Roadmaps and the State of California Green Building website. However, despite these reductions, many of which have exceeded the Executive Order reduction goals up to and including 2020 goals, the reduction of greenhouse gas (GHG) emissions achieved is currently 5%. Executive Order goals for GHG emissions are 10% by 2015 and 20% by 2020.

In August 2017, the State of California Green Building website began employing Climate Registry Information System (CRIS) data for determining GHG emission reduction. This inclusion changed the calculated GHG reduction previously posted on the State of California Green Building website from 24% to 5%. The previous calculation for GHG emission utilized only Energy Star Portfolio Manager reported energy usage for determining GHG emission production. The DOR has eleven offices where energy usage is measured due to separate energy meters and that energy usage is reported in the Energy Star Portfolio Manager. However, the CRIS employs a general calculation for space not separately metered, to estimate GHG emission production based on square footage. With the utilization of the CRIS estimated data, the reduction in GHG emissions provided was lower than previously identified.

This presents some unique challenges for the DOR in how to obtain specific energy use data for non-metered field offices and what reduction options are feasible for privately leased space. Because the field offices operate as a standard business office, operating between the hours of 8am and 5pm weekdays, the energy usage is not substantial at these locations and the CRIS calculation may not provide data true to the actual energy usage and greenhouse gas production. The solution the DOR will employ, where feasible, is to install separate energy meters at these locations so the DOR can accurately record and track energy usage. However, the expense to add separate energy meters to all existing leased offices is cost prohibitive, in consideration of the number of privately leased offices the DOR employs. The DOR will be exploring separate energy meters with each eight year lease renewal or when a field office moves to a new location, as well as researching the employment of “clamp-on energy meters” for offices two more years away from lease agreement end dates.

Additionally, the DOR has sent out regular communications to all DOR field offices providing information on sustainable practices, including reducing water and energy usage, as well as recycling. These communications are being expanded to provide more information and resources to assist in increasing awareness of GHG production and the measures that can be taken in DOR field offices.

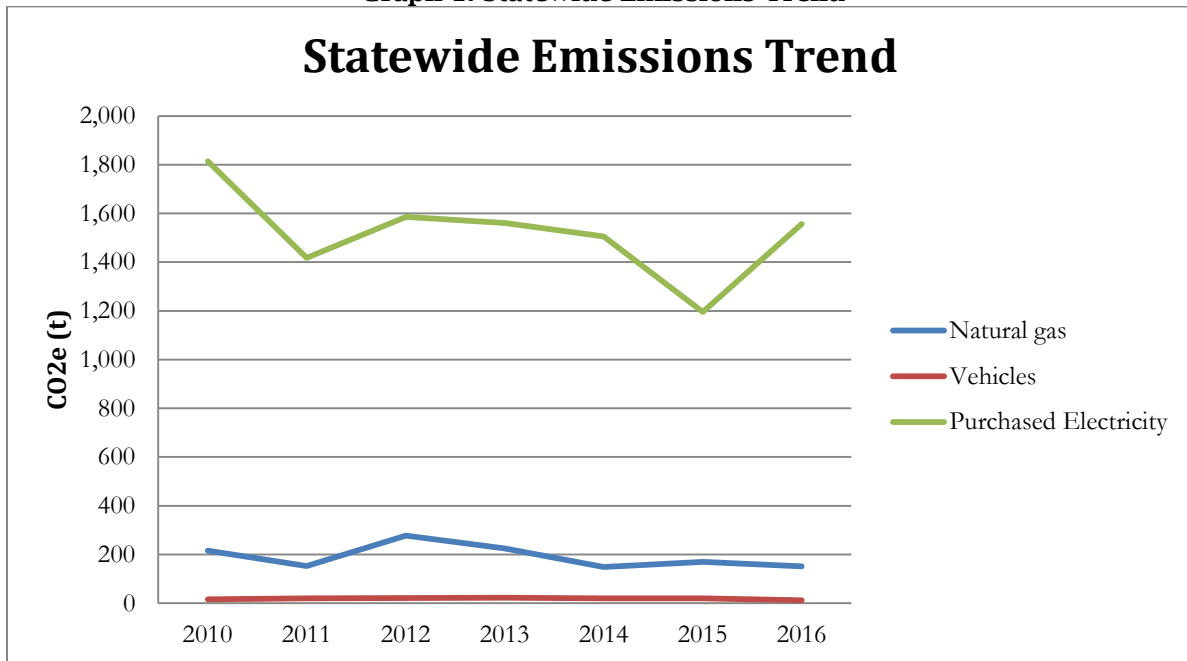
It has been from these communications and the efforts taken at the DOR's one owned facility, the OCB campus, that the greatest reductions to greenhouse production have occurred. Aside from educating staff and students regarding sustainable practices, reduction in GHG production at the OCB can be attributed to the cleaning and maintenance of the campus' three boilers and replacement of less efficient appliances with Energy Star rated equipment. Additional efforts are underway to further decrease OCB campus energy usage, including replacement of T-12 fluorescent lighting with energy efficient LED lighting, expanded employment of occupations sensors for lighting, and installation of separate energy meters between the three campus buildings to better regulate energy usage and identify savings potential. For the OCB campus, the DOR is also exploring monitor based commissioning, renewal energy sources, installation of electronic vehicle charging stations and achieving zero net energy at this facility. As many of these efforts are still in planning and in identification of funding sources, a comprehensive plan for pursuing sustainability efforts at the OCB will be composed in 2018.

Although the DOR has not currently met the Executive Order 2015 goals for GHG reduction, it is from the above efforts and new initiatives that the department hopes to close the gap towards achieving a sustainable presence in California.

Table 1: GHG Emissions since 2010

	2010	2011	2012	2013	2014	2015	2016	Percent Change since Baseline
Natural gas	215	152	277	225	149	169	151	-29.8%
Vehicles	16	20	21	22	20	20	12	-25.0%
Purchased Electricity	1583	1246	1287	1314	1336	1196	1557	-1.6%
Total	1814	1418	1585	1561	1505	1385	1720	-5.1%

Graph 1: Statewide Emissions Trend



LEED for Existing Buildings Operations and Maintenance

All State buildings over 50,000 square feet were required to complete LEED-EBOM certification by December 31, 2015 and meet an Energy Star rating of 75 to the maximum extent cost effective.

The DOR has no owned state buildings over 50,000 square feet. However, the OCB campus is made up of three separate buildings, encompassing 42,152 total square feet. Although not required by Executive Order, the DOR will be exploring the possibility of achieving LEED for the OCB campus. Because the OCB represents the department's only owned facility and several sustainability projects will be initiated at the OCB in the coming years, it may be feasible to reach LEED status for the OCB campus using the coming sustainability efforts as the foundation.

Indoor Environmental Quality

When accomplishing Alterations, Modifications, and Maintenance Repairs and when relevant and feasible, state agencies shall implement the mandatory and voluntary measures of the California Green Building Standards Code (CALGreen), Part 11, related to indoor environmental quality.

Indoor Environmental Quality must also be maintained through the use of low emitting furnishings, cleaning products and cleaning procedures.

New Construction and Renovation

The DOR does not currently have plans for any new construction or major renovation projects at the Department's one owned facility, the OCB campus. However, the DOR is working in

cooperation with the Department of General Services (DGS) Direct Construction Unit (DCU) in replacement/retrofit of 746 existing incandescent and florescent lights with LED fixtures. With this transition, the DCU is ensuring that all CALGreen mandatory and feasible voluntary measures are taken to ensure Indoor Environmental Quality standards are met during and after the lighting upgrades. This includes the adhering to volatile organic chemical content limits for materials (adhesives, sealants, caulks, paints, coatings, acoustical ceiling replacement, lighting fixtures and bulbs). Additionally, the project increases the number of occupational sensors and provides the ability to adjust the light levels for the new areas, providing the OCB better control of light usage and the ability to maintain decrease light usage when daylight is available.

Aside from the DOR's owned facility, the DOR maintains 74 privately leased field offices throughout the state. The lease term for the field office is eight years, at which point the DOR either renews a lease in place or seeks out new office space. The transition of DOR field offices to new leased spaces occurs four to six times per year. When a new lease or renewal is signed, the lessor is required to adhere to specific Indoor Environmental Quality standards for construction and building operation, as identified in the DGS Standard Lease Form and Exhibit B Outline Specifications. These specifications include CALGreen mandates pertaining to toxic materials, floor construction and finishes, roof and insulation, acoustical ceilings, painting/wallcovering/sealants, heating ventilating and cooling, among other requirements. These provisions allow for the DOR to maintain a high level of Indoor Environmental Quality in DOR field offices.

Furnishings

The majority of furnishings purchased by the DOR for its office are acquired from the California Prison Industry Authority (CALPIA) and comply to DGS' Purchasing Standard and Specification (Technical Environmental Bid Specification 1-09-71-52. The furniture not purchased through CALPIA is purchased through small business vendors, who are also required to adhere to the same specification as CALPIA. DOR large furniture purchases are initiated and appropriate products selected by the DOR's Leasing and Space Planning Specialists, who work in conjunction with the DGS in the design of DOR office floorplans for the modular systems furniture and free stand furniture purchased.

Cleaning Products

The majority of cleaning products purchased by the DOR are for the OCB campus. At the OCB, two of the cleaning products currently used are green seal certified. Three additional cleaning products are environmentally friendly products, but not green seal certified. The remaining four cleaning products used are not specifically identified as environmentally friendly. The OCB is in the process of assessing other comparable cleaning products to substitute for those which are not green seal certified in 2018. Additionally, the DOR is in the process of identifying standard green seal cleaning products which the department has approved purchasing for general personal cleaning needs in DOR field offices.

The parameters for maintaining and general cleaning in privately leased DOR field offices are addressed in the DGS Standard Lease Form. Currently, that language does not call out for the specific use of Green Seal certified products, Integrated Pest Management or reference published cleaning standards to be used in DOR field offices. However, the DGS is currently updating standard language in the DGS lease to address the numerous Sustainability measures which have been implemented in recent years.

Cleaning Procedures

The cleaning procedures implemented at the OCB meet the Green Seal GS-42 standards as well as Title 8 Section 3362 guidelines. Additionally, entryways are maintained as specified in CalGreen Section A5.504.5.1. Of the vacuum cleaners used at the OCB, the Hover Taskvac has a gold rating, the Hover CH50400 has a silver rating and the Sanitaire SC5845 has a bronze rating from the Carpet and Rug Institute Seal of Approval. Vacuum are all used according to the Carpet Maintenance Guidelines for Commercial Applications.

HVAC Operation

The HVAC operations for DOR field offices is specified in the DGS Standard Lease Form and Exhibit B Outline Specifications, however those requirements are pending updates from the DGS to meet new sustainability standards. Likewise, current HVAC operation at the OCB are in review for similar updates. Although the manufacturer’s specified standards are followed for use and maintenance of the facilities HVAC system and the Orcaview 3.33 Delta Control software monitors system function and efficiency, additional measures will be taken to increase the inspection intervals and Indoor Air Quality efforts at the OCB.

Integrated Pest Management

Department staff and contracted pest management companies will follow an integrated pest management (IPM) strategy that focuses on long-term prevention of pest problems through monitoring for pest presence, improving sanitation, and using physical barriers and other nonchemical practices. If nonchemical practices are ineffective, [Tier 3 pesticides](#) may be used, progressing to Tier 2 and then Tier 1 if necessary.

The OCB has a contract with Advanced Integrated Pest Management to provide pest control services for the OCB campus. The scope of work for the contract specified that the vendor must develop and employ an Integrated Pest Management plan, as described in Management Memo 15-06, to address pests at the OCB.

Table 2: Pest control contracts

Pest Control Contractor	IPM Specified (Y/N)
Advanced Integrated Pest Management	Y

Environmentally Preferable Purchasing

State agencies are required to purchase and use environmentally preferable products (EPP) that have a reduced effect on human health and the environment when compared with competing goods that serve the same purpose.

Reducing Impacts

The environmental impact of the goods we buy is often larger than the impact of our own department operations. Our department is committed to reducing the environmental impact of goods and services purchased.

The DOR is committed to environmentally preferable purchasing towards efficient green operations of all DOR offices. The DOR follows current State Agency buy Recycled Campaign (SABRC) guidelines as derived from California Law, California Regulation and Federal Regulations implemented to ensure recycled content products are purchased by state entities and those purchases are tracked and reported. Through following SABRC guidelines, the DOR reduces energy and water usage when compared to purchasing non-recycled content products, as well as reducing the strain on natural resources. The DOR also extends these requirements to contractors through inclusion of SABRC guidelines in the scope of work for contracted services.

The DOR employs identified regulations for purchasing recycled content materials and equipment, including:

- Paint purchased for use in OCB is recycled paint or master painter's institute certified paint. Paint used in DOR lease offices or DGS managed buildings also adhere to these guidelines, as provided in DGS lease language or DGS Facility Management Branch (FMB) policy.
- IT goods (computers, printers, copiers, etc.), Business Enterprises Program vending machines and other electrical appliance purchases (shredders, kitchen appliances, etc.) made by the DOR are energy star rated, where possible. If an energy star rated appliance is not available for a piece of equipment, energy efficient products are chosen as a priority in determining product choice. The EPEAT website is utilized to assist in identifying suitable product purchases.
- Janitorial supplies purchased are SABRC and Green Seal rated where possible. Internal policy guidelines are being refined for these types of purchases to assist in directing DOR purchasers to effective, green cleaning products.
- Paper products purchased adhere to SABRC standards. From a recent reporting, it was identified that although copy paper products met the SABRC standards, the specific type of paper file used for DOR consumer files was not of sufficient recycled content. A new product is currently being investigated to ensure all paper product purchases can meet or exceed the SABRC purchase thresholds wherever possible.

Measure and Report Progress

The DOR strives to adhere to SABRC guidelines for both purchasing and recording recycled products. In 2016 the DOR spent \$1,599,076 on statewide procurement contracts. Of that amount, \$259,085 of products was SABRC reportable with \$170,294 or 65% which was SABRC compliant. This information, as well as the 2016 SABRC Performance information below, was included in the 2016 SABRC Summary Report to the DGS.

In addition to the DOR's success in meeting SABRC compliance in almost all purchase categories, the department persists in identifying new opportunities to exceed SABRC thresholds. Such efforts include further training of procurement staff to provide improved guidance, identify more recycled content purchase options to buyers in DOR business areas, increased emphasis on SABRC purchasing in trainings provided to responsible for initiating the purchasing of goods and services and closer monitoring of progress through the year on SABRC compliance so opportunities for improvement can be identified and implemented as soon as possible.

Table 3: State Agency Buy Recycled Campaign 2016 Performance

Product Category	SABRC Reportable Dollars	SABRC Compliant Dollars	% SABRC Compliant
Antifreeze			
Compost and Mulch			
Glass Products	\$ 100	\$ 100	100 %
Lubricating Oils			
Paint			
Paper Products	\$ 51,645	\$ 24,499	47%
Plastic Products	\$ 65,268	\$ 49,070	75%
Printing and Writing Paper	\$ 45,566	\$ 26,404	69%
Metal Products			
Tire Derived Products			
Tires			

As provided above, the DOR has met or exceeded the SABRC thresholds for all product categories, except for Paper Products, which was 47% out of the required 50%. The deficiency was identified from a specific type of paper file folder, used to hold DOR consumer files. The recycle content of these folders and quantity purchased was insufficient to meet SABRC compliance percentage for 2016; however the DOR is current exploring other product options to meet and exceed the 50% goal for 2018.

In addition, the DOR is aware that in 2020, the SABRC thresholds will increase from 50% to 75% in several of the product categories. The DOR has enacted the measures identified above to make purchasing changes now to reach the 75% goal in advance of the 2020 change date.

Sustainability Development and Education

All DOR Administrative or Consumer CalCard holders, Approving Officials or staff responsible for initiating purchasing of goods and services is required to complete the DGS Acquisitions Under \$5,000 training. Compliance to this requirement is monitored closely by the DOR

Procurement team and over 300 DOR staff have completed this training. The training includes EPP and SABRC training. Additionally, the DOR is developing supplemental communications and additional in-house training on assisting DOR staff in understanding and meeting EPP goals.

Total Number of Employees Assigned as Buyers: 13

Table 4: Buyers who have completed EPP Training

CalHR Classification	Total Number of Buyers	Percent Completing EPP Training	Commitment to have buyers complete EPP training (%)
Procurement/Contract Analyst (AGPA)	13	100%	100%

Location Efficiency

Location efficiency refers to the effect of a facility’s location on travel behavior and the environmental, health and community impacts of that travel behavior including emissions from vehicles. Locating department facilities in location efficient areas reduces air emissions from state employees and users of the facilities, contributes to the revitalization of California’s downtowns and town centers, helps the department compete for a future workforce that prefers walkable, bikeable and transit-accessible worksites and aligns department operations with California’s planning priorities.

Our department’s goal is that the average location efficiency score for all new leases be 10% higher than our average on of January 1 2017.

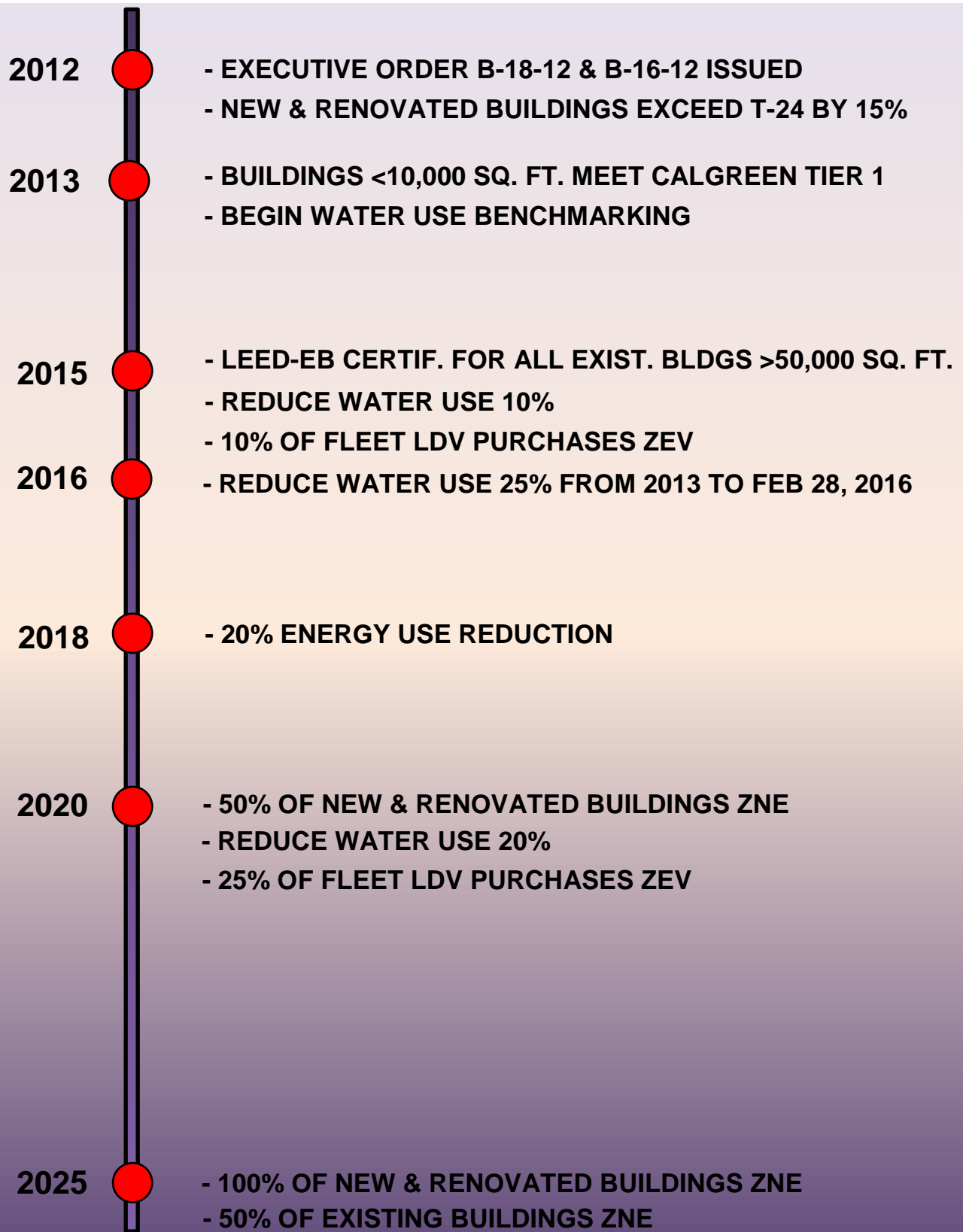
The DOR’s primary goal is to provide assistance and services resulting in employment for Californian’s with mental and physical disabilities. To fulfill the DOR’s goal, our services must be accessible to our consumers throughout California. The placement of DOR field offices is determined from several factors, but most importantly is placement where existing or potential DOR consumers can access our services. Although location efficiency was not previously a factor in determining DOR field office location, current DOR offices typically have good location efficiency scores because many of the factors we do use (population centers, public transportation routes, etc.) are factored into the location efficiency scores. However, the DOR is amending its site selection criteria to include location efficiency scoring.

The DOR has executed no leases for field offices with site searches that began after January 1, 2017; however with the location efficiency score now included into site search factors, the DOR hopes to refine field office placement to further improve office placement.

Table 5: Lowest Smart Location Score Leases

Facility name	Smart Location Calculator Score
Fairfield Field Office	31
Richmond Field Office	43
San Marcos Field Office	45

SUSTAINABILITY MILESTONES & TIMELINE



DEPARTMENT STAKEHOLDERS

Greenhouse Gas Emissions	
Business Services Section	Victor Abila, Vehicle Coordinator Joseph Carmena III, Chief of Business Services Records energy and water usage into CRIS system and identifies GHG reduction opportunities

Building Design and Construction	
Business Services Section	Joseph Carmena III, Chief of Business Services No planned building design or construction projects pending

LEED for Existing Buildings Operations and Maintenance	
Business Services Section	Melissa Corker, Leasing and Space Planning Specialist Joseph Carmena III, Chief of Business Services Defining LEED efforts and researching and application of funding sources for planned LEED projects
OCB	Jessica Grove, OCB Administrator Develop implementation plan and coordinate construction at OCB

Indoor Environmental Quality	
Business Services Section	Joseph Carmena III, Chief of Business Services Identify IEQ opportunities at privately leased field offices
OCB	Jessica Grove, OCB Administrator Identify IEQ opportunities at OCB

Integrated Pest Management	
OCB	Jessica Grove, OCB Administrator Monitor and identify IPM improvement opportunities at OCB

Environmentally Preferable Purchasing	
Business Services Section	Joseph Carmena III, Chief of Business Services Purchasing communications and recycling coordination
Procurement	Thomas Dempsey, Procurement Chief Purchasing education and production identification for DOR staff.

Location Efficiency	
Business Services Section	Joseph Carmena III, Chief of Business Services Utilization of Location Efficiency scoring in field office placement