Sustainability Roadmap 2018-2019: Energy

Progress Report and Plan Update
on Meeting the Governor's Sustainability Goals
for State Departments

Health and Human Services Agency

Edmund G. Brown Jr., Governor

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Department of Rehabilitation Sustainability Roadmap 2018-2019: Energy

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Acronyms

ADR	Automated Demand Response
CA	California
CALGREEN	California Green Building Code (Title 24, Part 11)
CEC	California Energy Commission
DGS	Department of General Services
EMS	Energy Management System (a.k.a., EMCS)
EMCS	Energy Management Control System (a.k.a., EMS)
EO	Executive Order
EPP	Environmentally Preferable Purchasing
EUI	Energy Use Intensity (source kBTU/sq. ft.)
EVSE	Electric Vehicle Supply Equipment (charging equipment)
GHGe	Greenhouse Gas Emissions
IEQ	Indoor Environmental Quality
kBTU	Thousand British Thermal Units (unit of energy)
LEED	Leadership in Energy and Environmental Design
MM	Management Memo
OBF	On-Bill Financing
PPA	Power Purchase Agreement
PUE	Power Usage Effectiveness
SAM	State Administrative Manual
SCM	State Contracting Manual
ZEV	Zero Emission Vehicle
ZNE	Zero Net Energy

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 energy.

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 majority of energy reporting data is obtained from the OCB and the ten privately leased office spaces which possess separate utility meters to measure energy usage. From these metered locations, as of 2016 the DOR has obtained a 39.42% reduction in energy purchases compared to the 2003 baseline. The greatest energy usage and greatest reductions achieved have been at OCB, where energy usage has continued on a steady decline from 132,385 kBtu in December 2012 to 90,332 kBtu in December 2016, a 32% reduction. This has been achieved through several measures, including cleaning and maintenance of all three boilers, replacement of less efficient appliances with Energy Star rated equipment and communication/education of staff and stakeholders regarding conservative energy usage practices.

Despite these reductions, there is more usage data and reduction potential available through DOR's remaining 64 privately leased, non-metered field offices. As leases come up for renewal and where finically feasible, the DOR is having separate energy meters installed at DOR privately leased offices during lease renewal or when an office moves to a new building. This provides additional data to better measure, analyze and reduce the DOR's energy usage.

In addition to the separate metering, the DOR is currently in the process of exploring on-site renewal energy options, demand response program participation, monitor based commissioning potential, Zero Net energy feasibility, energy reduction projects and other measures. The DOR continues to strive to meet and exceed the sustainability goals set forth by the Governor's Executive Orders and other mandates.

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 has issued numerous executive orders directing sustainable state operations. The orders relevant to energy 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-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 by 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.

State Administrative Manual & Management Memos

The following sections of the State Administrative Manual (SAM), and associated Management Memos (MM), currently impose sustainability requirements on the Department under the Governor's executive authority:

- SAM Chapter 1800: Sustainability
- MM 15-06: State Buildings and Grounds Maintenance and Operation
- MM 15-04: Energy Use Reduction for New, Existing, and Leased Buildings
- MM 15-03: Minimum Fuel Economy Standards Policy
- MM 14-05: Indoor Environmental Quality: New, Renovated, And Existing Buildings
- MM 14-07: Standard Operating Procedures For Energy Management In State Buildings
- MM 14-09: Energy Efficiency in Data Centers and Server Rooms

ENERGY REPORT

This Energy Report demonstrates to the Governor and the public the progress the Department has made toward meeting the Governor's sustainability goals related to energy. This report identifies successful accomplishments, ongoing efforts, and outstanding challenges.

Department Mission and Built Infrastructure

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. 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 these services through 84 locations throughout the state, encompassing a collective 387,464 square feet.

The DOR's field offices are located in 74 private leased office spaces and 9 DGS managed buildings. Of those locations, 10 of the privately leased office space locations have office dedicated electricity and/or natural gas meters, which allow the DOR to record and track energy usage for those offices in the Energy Star Portfolio Manager. When the DOR renews or begins a new private lease, if financially feasible, the DOR obtains separate meters for energy consumption. This allows the DOR to better track field office energy usage to identify trends and usage saving opportunities.

In addition, 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. As the DOR's only owned facility and its energy usage is measured, this property provides the department with the greatest opportunity to make building modification towards meeting the identified sustainability goals.

Table 1: Total Purchased Energy 2016*

Purchased Utility	Quantity	Cost ($)
Electricity	756,052 kWh	$ 142,739
Natural Gas	39,587 Therms	$ 39,215
Propane	N/A	N/A
TOTAL COST	---	$ 181,954

* Totals includes all 2016 Energy Star Portfolio Manager reporting

Table 2: Properties with Largest Energy Consumption

Building Name	Floor Area (ft^2)	Site Energy (kBTU)	Source EUI (kBTU/ft^2-yr)
Orientation Center for the Blind	42,152	7,455,532	177
Total for Buildings in This Table	42,152 ft^2	7,455,532 kBTU	177
Total for All Department Buildings	42,152 ft^2	7,455,532 kBTU	177
% of Totals	100 %	100 %	100 %

Currently, only ten of the DOR's 74 privately leased office spaces have separate utility meters. As new leases and lease renewals are established, the DOR transitions group metered office space to separate metering whenever financially feasible. However, despite the inability to measure, the DOR does possess strategies of how energy can be conserved in leased office spaces. The DOR is able to reduce energy usage throughout the lease office space, through employee continued participation in conservation efforts, energy efficient equipment purchasing, power regulation, Title 24 requirements in office build outs, etc. However, as leased office spaces are managed by a private lessor, certain space modification and building-wide changes are limited due to cost and lessor's willingness to pursue. These can include separating energy meters to DOR office space, participation in demand response programs, installation of electronic vehicle charging stations in public parking areas, transitioning to LEED or ZNE buildings and other energy conserving efforts. The DOR and the DGS address these items with private Lessors by making requests and providing information on energy savings and funding opportunities for energy efficient building modifications.

The DOR's owned facility, the OCB, was constructed in 1964 and still retains some of its original fixtures and systems. The campus does not currently employ a building commissioning system, so energy usage between systems or buildings is not measured separately. As the DOR's only owned facility, the greatest opportunity for energy conservation actions is available at the OCB. In considering sustainability improvements, the age of the facility, costs to undertake these efforts and the disruption to students and staff are some of the DOR's primary concerns. The efforts currently underway and being researched are discussed in greater detail below. Despite the fact that some of the more costly and larger scope projects have not been initiated/completed yet, the OCB has been able to meet and exceed the identified goals to date for grid-based energy purchases.

Zero Net Energy (ZNE)

The Governor has set forth the following milestones for state zero net energy buildings:

2020 – 50% of new construction & major renovations will be ZNE

2025 – 100% of new construction & major renovations will be ZNE

2025 – 50% of total existing building area will be ZNE

The DOR has only one department owned facility, the OCB. The OCB campus buildings are currently not ZNE buildings. Based on the above requirement, 50% of total existing building area should be ZNE by 2025, which is 21,076 square feet or half the area of the OCB. However, it is the DOR's goal to have all three building of the OCB campus meet the ZNE goal by 2025. Currently, the DOR is arranging with the local utility company for an energy assessment of the campus. This will follow with Monitoring Based Commissioning implementation and exploration into renewal energy options.

Table 3: Zero Net Energy Buildings

Status of ZNE Buildings	Number of Buildings	Floor Area (ft^2)
Under Construction or Completed	0	0
Building In Design	0	0
Building Proposed for Before 2025 (but not yet in design)	3	42,152
Totals for ZNE Buildings	3	42,152
Totals for All Department Buildings*	77	387,464
% ZNE	11%	100 %

* includes all privately leased field offices and three OCB campus buildings

New Construction Exceeds Title 24 by 15%

All new state buildings and major renovations beginning design after July 1, 2012, must exceed the current California Code of Regulations (CCR) Title 24, energy requirements by 15% or more.

The DOR has had no new building construction or major renovation since July 2012 and has no plans for any new construction or major renovations within the next five years.

Reduce Grid-Based Energy Purchased by 20% by 2018

Executive Order B-18-12 requires state agencies to reduce grid-based energy purchased by 20% by 2018, compared with a 2003 baseline.

The DOR continues its success with reduction of grid-based energy purchases when compared with the 2003 baseline. As of 2016, the DOR has reduced all measured energy purchases by 39.42%. Below are some of the steps the DOR has taken to achieve this reduction.

- DOR desktop and laptop computers, monitors, printers, and scanner/copiers are set by administer rights to enter energy-saving mode after 15 minutes of inactivity, which is a more aggressive energy savings stance than what is directed in Department of

Technology's Basic Policy 4819.31. For desktop and laptop computers, the Window operating system is used for energy-saving management.

- Occupation sensors are utilized in DOR offices to power down overhead lighting when not needed. Current department practice is to power down computers and turn off other electrical devices (task lights, etc.) when not in use. This practice will be expanded and reinforced in amended Central Office and Field Office Operation Plans, which are currently in revision.

  At the OCB, each staff member has been instructed to close down their individual work areas at the end of their shift. The OCB swing shift dorm counselor then does a complete round of the facility at 5:00pm to make certain that all lights are off, and everything has been shut down and secured.
- Energy Star rated equipment is purchased for equipment where possible. When Energy Star is not available, other energy efficient product options are selected (shredders, etc.). The DOR will be participating in the Sustainable Purchasing Leadership Council cohort to establish a baseline in green purchasing for the State of California and to identify new opportunities in green purchasing, including procuring energy star rated equipment.
- For all DOR leased offices, the DGS standard lease language addresses the lessors' requirements for HVAC function and controls.

  Similarly, in DGS managed state office buildings, HVAC controls are set to adhere to respective Management Memos and State Administrative Manual requirements.

  In the OCB, the global HVAC system is set to a 2 degree F fluctuation from the temperature set point. The boilers are turned on only as needed and are not needed in most months. During transitional weather, the boilers are run in the morning and turned off as the buildings retain the heat. Facility staff checks the thermostat levels regularly. The Stationary Engineer is responsible for regular schedule of maintenance and filter changing. They are also responsible for quarterly, semi-annual and annual maintenance of OCB boilers.
- The DOR maintains only one data center, located at the DOR Central Office. Previously that center maintained the recommended supply air inlet temperature between 23 to 27 degrees Celsius, as directed in Management Memo 14-09. However, to meet the maximum temperature allowed by equipment manufacturers, the DOR Information Technology Services Division is implementing phased 2 degree temperature increases, allowing time to monitor DOR server function, until the maximum temperature of 78 degrees F has been obtained.
- Temperature settings for domestic hot water systems are identified in DGS lease language for all DOR leased offices. The current lease languages states water heaters shall initially deliver water at 110 degrees F. It has been brought to the attention of the DGS Real Estate Services Division that 105 degrees F is the preferred setting for domestic hot water systems and the DGS is researching the need to revise current standard state lease language.

DGS managed state buildings follow suit as directed in Management Memos for domestic hot water systems.

In the OCB, the Stationary Engineer is responsible for regularly checking and maintaining 105 degrees F for the domestic hot water systems of that facility.

- For all DOR leased offices, the DGS standard lease language addresses the lessors' requirements for lighting requirements, including the use of occupation sensors and other Title 24 requirements. The duration of DGS standard leases is 8 years. For cost concerns, as sustainability mandates are received involving physical space alterations, these alterations are addressed at lease renewal or when an office moves.

  In DGS managed state office buildings, lighting levels are set to adhere to respective Management Memos and State Administrative Manual requirements.

  The OCB currently has several areas which possess occupation sensors; however, the facility still maintains T-12 fluorescent lighting. In 2015, the DOR began working with the DGS Direct Construction Unit (DCU) towards the replacement of all T-12 fluorescent and many incandescent lights, with energy efficient LED lighting in the interior of the three-building campus, as well as the exterior lighting. Replacement plans have been finalized and the DCU is in the process of procuring the LED lighting and establishing an installation schedule.
- DOR staff is limited in plugging in the personal devices such as cell phones. Space heaters, microwaves, refrigerators and coffee makers are not permitted in work areas, except for equipment in addressing documented and approved Reasonable Accommodations. This direction is enforced through visual inspection by supervisors and facility management staff.

  Some of the personal device restrictions are identified in the DOR Central Office Building and Operations plan. However, the DOR is currently in the process of creating/revising Central Office, Field Office and OCB Building/Office Operation Plans to address gaps and provide additional resource conservation direction.
- The DOR is in the process of creating/revising Central Office, Field Office and OCB Building/Office Operation Plans to include limiting the new purchases of employee break room equipment to Energy Star rated devices and coffee makers that shut off automatically. Currently, the DOR is unaware of any refrigerators manufactured prior to the year 2000 in DOR offices or coffee makers that do not shut off automatically, however, the DOR is surveying to confirm, and if found, a plan for replacement will be established. The operations plans will also address the need that break room equipment is cleaned regularly and maintained to optimize efficiency.
- The DOR has two vending machines, both located at the OCB. The one refrigerated drink vending machine at the OCB is energy star rated 3.0, per California regulations. The other vending machine at OCB is a snack machine, with no compressor and is not energy star rated because the only electrical components are the coil and currency adaptors (low energy draw). Vending machines at other DOR offices are at the discretion and the responsibility of the lessor/building management.

The exception to this are vending machines managed through participation of the DOR Business Enterprises Program (BEP) in state or federal buildings. The BEP has confirmed that any new vending machines purchased are done so per current California energy efficiency regulations. The BEP is currently assessing if any existing vending machines are not Energy Star rated, eligible for replacement, and could be replaced with Energy Star rated machines.

- The DOR is currently investigating products and quantity needed to install energy miser timers on all equipment (paper shredders, lighted snack vending machines, water coolers, etc.) so that equipment will be turned off automatically during non-working hours.
- The DOR is currently drafting a director communication to educate all employees on the importance of minimizing electrical plug loads.
- The DOR has only one data center, which is located at the DOR Central Office, in a DGS managed state office building. The DOR data center is 1,033 square feet and must report power usage effectiveness (PUE) to the Department of Technology. The DOR is currently in the process of submitting a CRUISE (DGS Space Action Request) request to the DGS to request separate energy metering for the data center and respective cooling unit to obtain necessary data center power usage to report this information and determine the PUE to also report to the Department of Technology.
- All purchases of DOR network switches and routers meet the Energy Efficiently Ethernet IEEE 802.3-2012 Section 6 standard.
- The DOR always considers virtualization and cloud solutions first. Physical hardware is rarely purchased unless it is to augment or further support virtualization systems. The DOR is also exploring moving workloads to the cloud as much as possible.

The below chart identifies the total kBTU consumptions for the DOR's owned facility, the OCB. The energy usage at this 42,152 sq. ft. facility has fluctuated over the years due to a renovation project (2012), environmental system repairs and usage changes (2013-2015), and the varying number of students participating in the program (six month average per student). Despite this, the cost and quantity of grid based energy purchase has not fluctuated significantly since the baseline year.

The function of the OCB facility differs between buildings. The campus is comprised of a two-story dormitory, a one-story administration/classroom building and a one-story cafeteria/gym building. The dormitory functions 24/7. The administration/classroom building operates weekdays, during normal business hours (6am-6pm) and the cafeteria/gym building usage fluctuates, mostly centering on food preparation and dining 7 days a week. Because of the varying usages and operating hours, the energy usage also varies. Currently, there is not separate metering of energy usage between these three campus buildings, however that is an objective for this facility which will be explored in 2018.

The OCB campus is currently identified as an "Office – Small <50K sq. ft. - Others" use type, which was selected initially as the campus' buildings are not individually metered and could not be separated based on energy usage. Currently the average Source EUI for climate zone 3 for this building use type is 105, however the 2016 Source EUI for the OCB is 177. This high Source EUI can be attributed to both a misidentification of use type due to the three separate building functions as well as the opportunity for energy saving opportunities at the campus.

Table 4: Department Wide Energy Trends

Year	Floor Area (ft^2)	Total kBTU Consumption	Department Average EUI
Baseline Year	42,152	6,461,463	153
2012	42,152	6,750,670	160
2013	42,152	5,779,749	137
2014	42,152	4,066,557	96
2015	42,152	4,430,940	105
2016	42,152	7,455,532	177
2018 Goal	42,152	6,500,000	154

The DOR continues its success with reduction of grid-based energy purchases when compared with the 2003 baseline. As of 2016, the DOR has reduced all measured energy purchases by 39.42%.

Table 5: Energy Reductions Achieved

Purchased Energy Compared to Baseline	Number of Buildings	Floor Area (ft^2)	Current Year Energy Use	Percent of Total Energy
20% Reduction Achieved	13	42,152	5,767,555	100%*
Less than 20% Reduction				
Unspecified Baseline (if any)				
Totals	77	387,464	5,767,555	
Department-Wide Reduction	**39.42 %**			

* Energy usage includes all 2016 Energy Star Portfolio Manger reporting.

The DOR is undertaking several initiatives to assess and reduce purchased energy. In addition to the Demand Response, Renewal Energy and Monitor Based Commissions initiatives discussed below, the Department seeks to better record and track energy usage department-wide. This will be accomplished through separate energy metering of the OCB campus buildings and through more aggressively pursuing separated metering at the DOR's privately leased field offices. With a better understanding of what and how individual OCB buildings and DOR field offices are using energy, we can better assess energy reduction potential.

At the OCB, the DOR has been involved in a two-year project with the DGS Direct Construction Unit to replace or retrofit 746 existing incandescent and florescent bulbs with LED tubes/fixtures. As the scope of the project has evolved, the DOR is still awaiting a confirmed estimate of energy savings from DCU for the transition to LED at this facility. Once determined, that information be included in the DOR's Energy Roadmap.

The DOR is also making efforts to educate DOR staff and OCB students on conservative energy practices, both in the office and at home. The DOR has initiated monthly conservation emails,

including conservation of energy information, to provide tips and guidance. Additionally, a communication from the DOR Director is being drafted to educate all staff on the importance of minimizing electrical plug loads.

Finally, the DOR is working with PG&E and a private vendor to conduct an Energy Survey of the DOR's OCB campus to provide guidance and direction on both the current and future sustainability efforts the DOR is undertaking.

Table 6: Summary of Energy Projects Completed or In Progress

Year Funded	Energy Saved (kBTU/yr)	Floor Area Retrofit (ft^2)	Percent of Department Floor Area
2012			
2013			
2014			
2015	In progress	42,152	11 %
2016			

Demand Response

Executive Order B-18-12 directed all state Departments to participate in available demand response programs and to obtain financial incentives for reducing peak electrical loads when called upon, to the maximum extent cost-effective.

The DOR is currently exploring the demand response programs which can be implemented in the departments only owned facility, the OCB three building campus. The DOR is currently working with PG&E and third-party vendor Energy Solutions to determine the appropriate demand response program for this facility. To date, it has been identified that a Peak Day Pricing tariff would not be an appropriate program as the total annual bill for the OCB would increase $3,000-$4,000 and would be very unlikely that the OCB could shed 75 kW during demand response events to break even.

The current direction being explored is participation in a Capacity Bidding Program. The demand response potential for the OCB, based on 2016 operation data, is about 16-35 kW, a potential demand response participation incentive of $3,200-$7,000. The DOR is working with the PG&E, Energy Solutions, and the DGS to determine the best way to obtain and measure what reduction methods can be employed at the OCB during a demand response event to establish what the DOR's level of commitment should be during those events and obtain a narrower view of the actual participation incentive range.

Renewable Energy

New or major renovated state buildings over 10,000 square feet must use clean, on-site power generation, and clean back-up power supplies, if economically feasible. Facilities with available open land must consider large scale distributed generation through various financing methods, including, but not limited to, third party power purchase agreements (PPAs).

Although there are no specific kW goals for renewable energy, renewable energy does count towards meeting: (1) Zero Net Energy goal for 2025 and; (2) 20% grid based energy use reduction by 2018.

The DOR is assessing energy usage at the OCB to determine the feasibility of exploring renewable energy production at this campus. This exploration is being conducted with the assistance of the DGS and private vendors. Funding options are also being explored at this time.

Monitoring Based Commissioning (MBCx)

New and existing state buildings must incorporate Monitoring Based Commissioning (MBCx) to support cost effective and energy efficient building operations, using an Energy Management Control System (EMCS). State agencies managing state-owned buildings must pursue MBCx for all facilities over 5,000 square feet with EUIs exceeding thresholds described in Management Memo 15-04.

The DOR's owned facility, the OCB, currently has an individual monitoring program for the environmental system at that facility, but no Monitoring Based Commissioning system to oversee facility resource usage and efficiency. The DOR is currently exploring options from several vendors to incorporate at MBC system at the OCB campus, taking into consideration the steps the facility will be taking towards becoming a ZNE facility and potential employment of renewable energy resources.

Table 7: Planned Monitoring Based Commissioning Projects

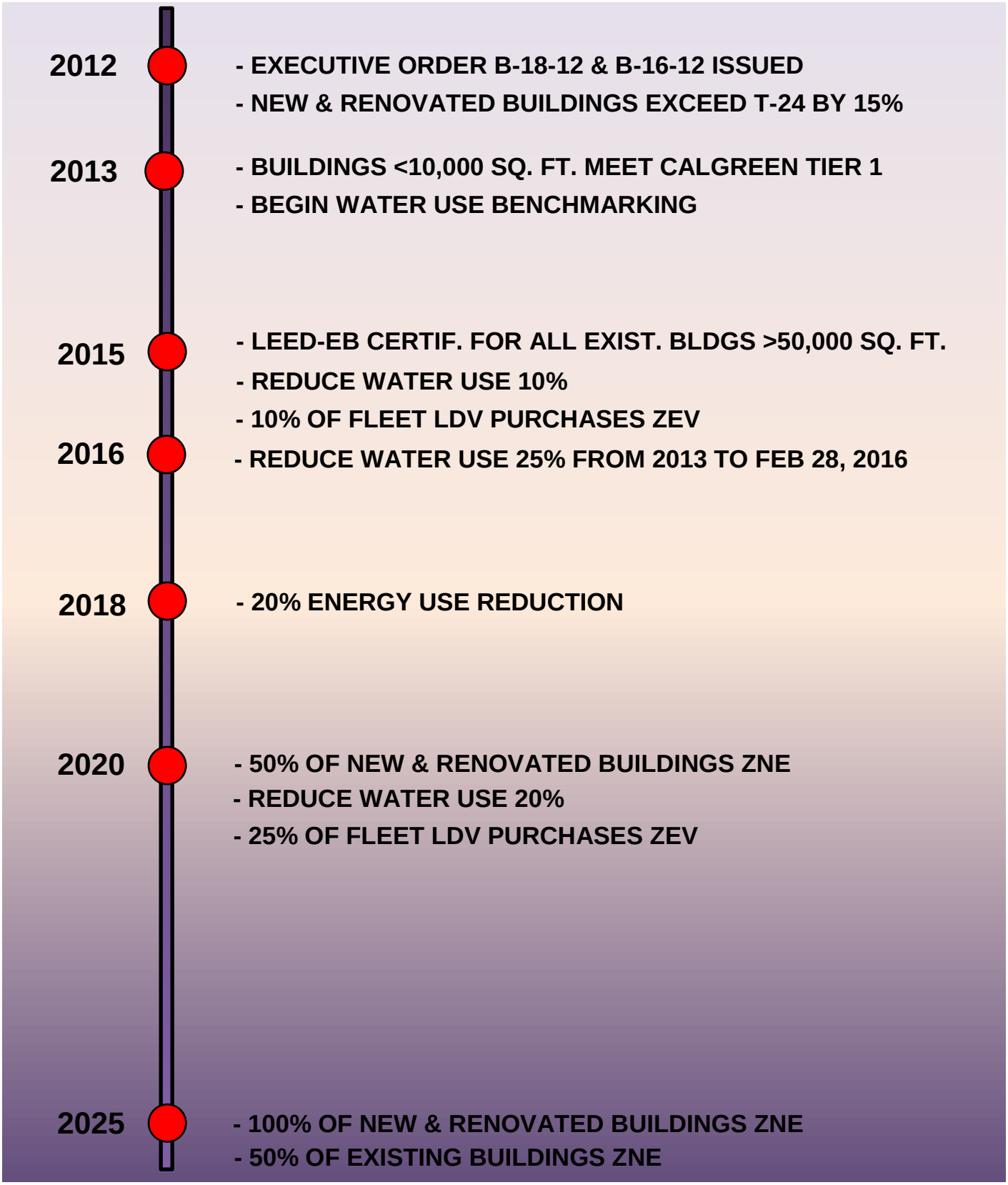
Building	Location	Floor Area (ft^2)	EMCS Exists? (MBCx Capable, MBCx Difficult, No EMCS)	MBCx Projected To Start	Projected Cost ($)
OCB	Albany	42,152	No EMCS	2018	To be determined
Totals		42,152			To be determined

Financing

State agencies are required to pursue all available financing and project delivery mechanisms to achieve these goals including, but not limited to: state revolving loan funds, utility On-Bill Financing (OBF), Power Purchase Agreements (PPAs), GS $Mart, Energy Service Contractors (ESCOs), or other available programs.

As many of the DOR energy conservation projects are still being researched, funding alternatives are also being explored for these projects. The DOR has utilized $70,000 in Water Conservation Project grant funding for work accomplished at the OCB and is currently working with the DGS to explore funding options for the installation of Electronic Vehicle Charging Station infrastructure at the DOR Central Office in Sacramento. The DOR always explores the funding possibilities for large projects, to ensure that as much of the department's funding as possible can be devoted to accomplishing the DOR mission of assisting individuals with disabilities in obtaining and retaining employment. .

SUSTAINABILITY MILESTONES & TIMELINE



DEPARTMENT STAKEHOLDERS

Zero Net Energy (ZNE)	
Business Services Section	Joseph Carmena III, Chief of Business Services Donald Kohaya, Assistant Chief of Business Services Assessing options for ZNE implementation at the OCB to meet 2025 goal.
OCB	Jessica Grove, OCB Administrator Assessing options for ZNE implementation at the OCB to meet 2025 goal.

New Construction Exceeds Title 24 by 15%	
N/A	N/A

Reduce Grid-Based Energy Purchased by 20% by 2018	
Business Services Section	Joseph Carmena III, Chief of Business Services Donald Kohaya, Assistant Chief of Business Services Accomplished. Seeking additional reduction possibilities throughout all DOR offices
OCB	Jessica Grove, OCB Administrator Accomplished. Seeking additional reduction possibilities at OCB

Demand Response	
Business Services Section	Joseph Carmena III, Chief of Business Services Donald Kohaya, Assistant Chief of Business Services Researching appropriate plan for the OCB
OCB	Jessica Grove, OCB Administrator Responsible for implementation of approved Demand Response Plan

Renewable Energy	
Business Services Section	Joseph Carmena III, Chief of Business Services Donald Kohaya, Assistant Chief of Business Services Researching Renewable Energy options for OCB
OCB	Jessica Grove, OCB Administrator Researching Renewable Energy options for OCB

Monitoring Based Commissioning (MBCx)	
Business Services Section	Joseph Carmena III, Chief of Business Services Donald Kohaya, Assistant Chief of Business Services Researching the implementation of MBC at the OCB
OCB	Jessica Grove, OCB Administrator Researching the implementation of MBC at the OCB

Financing	
Business Services Section	Joseph Carmena III, Chief of Business Services Donald Kohaya, Assistant Chief of Business Services Researching all funding options for Energy and other Sustainability Projects.