

FY 2021 Energy Management Plan

Instructions: The FY 2020 Energy Management Plan is broken up into multiple sections. This plan represents a comprehensive approach to energy reduction - please complete each section with as much detail as possible.

Note that directions listed under the Notes/Comments section may be deleted and replaced with agency comments.

If your agency is exempt from the energy goal, complete only those sections for which opportunities exist such as employee engagement.

If you need assistance with EnergyCAP, email: CEO_EnergyCAPSupport@state.co.us

Agency Specific Information																	
Name of Agency/Agency Contact. Include contact info.	Colorado Department of Corrections (CDOC) Facility Management Services 1250 Academy Park Loop, Colorado Springs, CO 80910 P 719.226.4128																
Agency participation in energy goal: Exempt/Non-Exempt	CDOC is non-exempt.																
# of buildings and total square footage subject to Executive Order (EO). EO square footage can be found in Documentation of Energy Baseline and Operational Boundary .	<u>EnergyCAP tracks more buildings than EO minimums</u> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">EO Buildings:</td> <td style="width: 30%;">204 Buildings</td> <td style="width: 40%; text-align: right;">6,180,372 SF</td> </tr> <tr> <td>EnergyCAP Buildings:</td> <td>614 Buildings</td> <td style="text-align: right;">6,974,751 SF</td> </tr> <tr> <td>CDOC Total:</td> <td>584 Buildings*</td> <td style="text-align: right;">6,412,778 SF*</td> </tr> </table> <p style="font-size: small;">EnergyCAP Buildings – These totals include facilities and locations where the Agency receives and pays utility expenses.</p> <p style="font-size: small;">* CDOC Total – These facts (as reported to the Office of the State Architect on July 3, 2020) include all owned Correctional Facilities, Correctional Industries (CCi) Buildings, and International Corrections Management Training Center (ICMTC) Buildings. CDOC is no longer asked to include leased space in the CDOC Total.</p>	EO Buildings:	204 Buildings	6,180,372 SF	EnergyCAP Buildings:	614 Buildings	6,974,751 SF	CDOC Total:	584 Buildings*	6,412,778 SF*							
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Total FY 2020 energy spend (\$). EnergyCAP Report -08, provides cost for each meter and total cost. Filter for “Data Displayed: Actual”, “Value Displayed: Cost”, “Billing Period: Prior Fiscal Year”, “Commodity: <i>Include any source of energy your agency utilizes</i> ” “Topmost Place Name: <i>Reporting Node</i> ,” and “Billing Period: Prior Fiscal Year” to display FY20 data.	FY 2020 Energy Spend Summary Information: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Total FY 2020 Floor Area in EnergyCAP:</td> <td style="text-align: right;">6,974,751 SF</td> </tr> <tr> <td>Total FY 2020 Energy Spend:</td> <td style="text-align: right;">\$ 11,329,929</td> </tr> <tr> <td>Average FY 2020 Cost / Floor Area:</td> <td style="text-align: right;">\$ 1.62/SF</td> </tr> </table>	Total FY 2020 Floor Area in EnergyCAP:	6,974,751 SF	Total FY 2020 Energy Spend:	\$ 11,329,929	Average FY 2020 Cost / Floor Area:	\$ 1.62/SF										
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Buildings Ranked by Use per area. This information is available using EnergyCAP Report -08, which will provide use per area (based on ECAP square footage.) Filter for “Data Displayed: Actual”, “Value Displayed: Use per Area”, “Billing Period: Prior Fiscal Year”, “Topmost Place Name: <i>Reporting Node</i> ,” and	FY 2020 Energy Use Summary Information: <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">Total Floor Area:</td> <td style="text-align: right;">6,974,751 SF</td> </tr> <tr> <td>Total Use in MMBtu (Normalized):</td> <td style="text-align: right;">1,031,819 MMBtu</td> </tr> <tr> <td>Use / Floor Area:</td> <td style="text-align: right;">0.148 MMBtu/SF</td> </tr> <tr> <td>Trinidad Correctional Facility</td> <td style="text-align: right;">0.226 MMBtu/SF</td> </tr> <tr> <td>Sterling Correctional Facility</td> <td style="text-align: right;">0.175 MMBtu/SF</td> </tr> <tr> <td>Denver Women’s Correctional Facility</td> <td style="text-align: right;">0.169 MMBtu/SF</td> </tr> <tr> <td>Arkansas Valley Correctional Facility</td> <td style="text-align: right;">0.165 MMBtu/SF</td> </tr> <tr> <td>Delta Correctional Facility</td> <td style="text-align: right;">0.157 MMBtu/SF</td> </tr> </table>	Total Floor Area:	6,974,751 SF	Total Use in MMBtu (Normalized):	1,031,819 MMBtu	Use / Floor Area:	0.148 MMBtu/SF	Trinidad Correctional Facility	0.226 MMBtu/SF	Sterling Correctional Facility	0.175 MMBtu/SF	Denver Women’s Correctional Facility	0.169 MMBtu/SF	Arkansas Valley Correctional Facility	0.165 MMBtu/SF	Delta Correctional Facility	0.157 MMBtu/SF
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"Billing Period: Prior Fiscal Year" to display FY20 data.	Limon Correctional Facility	0.148 MMBtu/SF
	Denver Receiving & Diagnostic Center	0.138 MMBtu/SF
	Colorado Correctional Center	0.137 MMBtu/SF
	Colorado Territorial Correctional Facility	0.129 MMBtu/SF
	Rifle Correctional Facility* (Propane Heat)	0.186 MMBtu/SF
	Buena Vista Correctional Complex*	0.039 MMBtu/SF
	La Vista Correctional Facility (CMHI-P)**	0.079 MMBtu/SF
	San Carlos Correctional Facility (CMHI-P)**	0.056 MMBtu/SF
	* Rifle and Buena Vista have limited mechanical cooling	
	** <i>Electric Only for LVCF & SCCF</i>	

- The facilities on the Pueblo Complex are not officially ranked. Heat is provided by the Colorado Mental Health Institute - Pueblo (CMHI-P) campus, for the two facilities listed (LVCF & SCCF), and almost all utilities are provided by CMHI-P for one of the facilities (Youthful Offender System - YOS) that is not listed.
- The East Cañon City Prison Complex is not ranked. It has a master electric meter that serves multiple prisons.

FY 2020 Weather Normalized Results	
<p>Energy Use Intensity (EUI): Agency energy reduction/increase FY 2020 over FY 2015 by square foot: EUI Data: If all building square footage information in EnergyCAP is correct this information can be found using the NORM05 report. Filter for "End Month; 6", "End Year; 2019", "Number of Months; 12", and if needed "Topmost Place Name." If building square footage information in EnergyCAP is not correct, use the NORM04 report to find usage data and then divide by the known square footage. Use the same filters as above.</p> <p>Agency energy reduction/increase FY 2020 over FY 2019 by square foot: 2.7% Decrease ↓</p> <p>Agency energy reduction/increase FY 2020 over Baseline FY 2015 by square foot: 11.6% Decrease ↓</p> <p>CDOC used EnergyCAP v7 Report-06, with Normalized energy data computing Energy Use/Area to calculate the above results.</p>	
<p>Explain FY 2020 results including strategies and/or issues that influenced the reduction/increase: Using weather normalized data, it appears that CDOC is maintaining the energy efficiency that we derived under the Energy Performance Contracts that were implemented prior to FY 2015, but that we are not reducing energy use to a significant extent.</p>	
<p>List key strategies outlined in FY 2020 plan, progress to date, and lessons learned*</p>	
<p>Strategy 1</p>	<p>Strategy 1: Beginning in FY 2017, CDOC initiated a feasibility process to assist the Department in our efficiency, conservation, and maintenance efforts.</p> <p>Progress: This effort will continue into FY 2021.</p>
<p>Strategy 2</p>	<p>Strategy 2: The Department of Corrections implemented Energy Performance Contracting (EPC) Energy Conservation Measures at Correctional Facilities.</p> <p>Progress: Energy Performance Contracting projects have been implemented at five of our larger facilities.</p> <p>Lessons Learned: Energy Efficiency and Water Conservation measures need to be thoroughly understood, prior to selection and implementation. The department needs to understand if we will be able to actually measure the savings, or if the savings will be stipulated. Also, we need to be fully aware of the effort and cost required to maintain the operational savings that are projected.</p>

	<p>Future Efforts: The facilities recommended for EPCs include the Trinidad Correctional Facility (TCF), Delta Correctional Center (DCC), Rifle Correctional Center (RCC), and Colorado Correctional Center at Camp George West (CCC). The impacts of SB17-267 and subsequent encumbrances under the State of Colorado's Lease Purchase program need to be understood prior to initiating EPC projects at leveraged facilities.</p>
Strategy 3	<p>Strategy 3: The department worked with facilities to install smaller water-use-reduction and energy conservation measures, including light-emitting-diode (LED) lights.</p> <p>Progress: Smaller projects are implemented as funding is available from utility cost avoidance through energy use reduction.</p>

*Add additional lines as needed

FY 2020 Renewable Energy Results

Provide source information and generation data for all sources of renewable energy. If a category does not apply to your agency please respond with "N/A."

Agency owned renewable energy systems	<ul style="list-style-type: none"> ● Size of Project N/A ● State Installed N/A ● Location N/A ● Description of Installation N/A ● Production for FY2020 (kWh) N/A ● Battery Storage Included? If Yes, Size of System N/A
Power Purchase Agreements [Provide the contracts, land license or site lease, and other documents for the PPA (if legally possible)]	<ul style="list-style-type: none"> ● Date of Agreement/Contract: 2010 <ul style="list-style-type: none"> ○ AVCF - Arkansas Valley Correctional Facility Crowley, CO ○ CTCF - Colorado Territorial Correctional Facility Cañon City, CO ○ ECCPC - East Cañon City Prison Complex Cañon City, CO ○ SCCF - San Carlos Correctional Facility Pueblo, CO ● Vendor Name: AES Distributed Energy ● Production Credit for FY2020 (kWh) 393,164 kWh ● <i>Redacted documents will be provided separately</i>
Power Purchase Agreements	<ul style="list-style-type: none"> ● Date of Agreement/Contract: 2014 <ul style="list-style-type: none"> ○ DWCF - Denver Women's Correctional Facility Denver, CO ○ DRDC - Denver Reception & Diagnostic Center Denver, CO ● Vendor Name: Renewable Social Benefit Funds ● Production Credit for FY2020 (kWh) 675,048 kWh
Power Purchase Agreements	<ul style="list-style-type: none"> ● Date Agreement/Contract: 2015 <ul style="list-style-type: none"> ○ SCF - Sterling Correctional Facility Sterling, CO ● Vendor Name: Fresh Air Energy VII, LLC ● Production Credit for FY2020 (kWh) 950,800 kWh
Solar Garden Subscription	<ul style="list-style-type: none"> ● Date Agreement/Contract: 2014 <ul style="list-style-type: none"> ○ SCF - Sterling Correctional Facility Logan County, CO ● Vendor Name Fresh Air Energy VII, LLC ● Production Credit for FY2020 (kWh): 1,129,055 kWh
Utility Renewable Energy Purchase Programs	<ul style="list-style-type: none"> ● Utility Provider: N/A ● Name of Program: N/A ● Premium paid per kWh for RE credit: N/A ● Production Credit for FY2020 (kWh): N/A

Renewable Energy Installations developed in cooperation with a utility with existing agreement	<ul style="list-style-type: none"> ● Utility: Sangre de Cristo Electric Association ● Location of installation: Buena Vista, CO ● Production Credit for FY2020 (kWh): 63,775 kWh
Leased Solar	<ul style="list-style-type: none"> ● Size of Project: N/A ● State Installed: N/A ● Location: N/A ● Description of Installation: N/A ● Production for FY2020 (kWh): N/A
Agency Total Electricity Consumption for FY2020 (kWh): 96,914,568 kWh	
Sum of All Renewable Energy Electricity Production for FY2020 (kWh): 3,211,842 kWh	
Percentage of electricity from renewable sources: (RE Production/Total Electricity Consumption): 3.31%	

FY 2021: Data Management	
	Notes/Comments
Explain the process your agency uses to manage EnergyCAP data	Starting in FY2019, CDOC began using Bill CAPture to upload the majority of CDOC's utility invoices into EnergyCAP. The utility invoice data is uploaded or entered into EnergyCAP on a daily basis. The Utility/Energy Analyst uploads and verifies the majority of the utility data. The Utility Management Engineer, uploads or enters a portion of the utility data. While both staff input utility/billing data, resolve billing errors, and coordinate with onsite maintenance staff, the Energy Analyst deals mainly with monthly utility invoices while Utility Management Engineer deals with solar photovoltaic contracts, annual water, and energy/utility performance contract (EPC), and other special utility and utility-related invoices.
Explain your process to analyze and act on energy data	CDOC receives a copy of the utility invoice via mail or online portal. We save an electronic copy to the local drive. The Energy Analyst or Utility Management Engineer uploads the invoice into Bill CAPture. To process the invoice for payment, we put time and date received stamp on the invoice and review the bill for usage abnormalities and billing errors. Once the data is uploaded into EnergyCAP, we check to see if there is a spike or drop in usage and, if it is deemed to be suspect, we check the weather / temperature pattern, the number of days (short, normal, or long month) reflected on the invoice service period. If the usage pattern is deemed to be suspect (usage is outside of regular pattern for the period, or use per day appears abnormal), we escalate further by notifying the onsite building physical plant manager and/or maintenance staff. Onsite staff then checks on problem(s) (such as leaks, meter issues, etc.) and resolves the issue, if at all possible. Facility Physical Plant staff might let us know that there was a change in building usage / occupancy / or operations so that we can notate the account going forward. If, on the other hand, there is a billing / accounting / utility meter issue with the bill, we contact the vendor to research the reason for the error, get it resolved, and have a corrected bill issued.

<p>In this section provide any other information about EnergyCAP, utility data, or energy analysis that helps explain your agency's approach to data management. Include any challenges your agency experiences with EnergyCAP or data management.</p>	<p>EnergyCAP's summary graphs and tables provide quick, easy views to assist in analysis to determine if utility cost and use are reasonable. CDOC uses the Utility Budget Module on the EnergyCAP installed client to track and project monthly and annual utility costs, since EnergyCAP data is closer to real time than CORE (the State's financial system).</p>
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FY 2021: Capital Improvements	
	Notes/Comments
<p>List planned FY 2021 energy efficiency improvements, project budgets, and anticipated energy savings.</p>	<p>CDOC's feasibility process assists the Department in our efficiency, conservation, and maintenance efforts. This feasibility process includes the following activities: site tours and data collection, cursory modeling of energy use intensity, staff interviews, analysis of our identified Controlled Maintenance and Capital Renewal needs at each location, collecting data relevant to site- and centrally-identified energy/water conservation measures, and consideration of incorporating renewables. Pending the outcome of these feasibility studies, we anticipate we will be moving forward with one or more Investment Grade Audits and, ultimately, Energy Performance Contracts (EPC) for facilities not subject to Senate Bill 267 [SB17-267] or prior EPCs.</p>
<p>List prioritized but unfunded energy efficiency improvements, budgets, and anticipated energy savings.</p>	<p>Location: Department-Wide</p> <ul style="list-style-type: none"> • Arkansas Valley • Buena Vista • Colorado Territorial • Delta • Colorado Correctional Center • Centennial • Limon • Sterling • Trinidad <p>Project: Building Automation System Controls Preliminary Estimate: \$300,000 Savings: TBD</p> <p>Based on a FY17 preliminary study, the department needs an estimated \$8,000,000 to upgrade existing deficiencies with the building automation system. The study identified items considered the, "Best Bang for Your Buck", that the department needs to implement in the immediate future to keep systems up, running, and operational, until \$8 million in funds can be secured. Due to lack of sufficient funding, the Department may need to take a phased approach and install a few hundred thousand dollars in BAS improvements at a time.</p>
<p>Describe your agency's process for identifying, prioritizing, and funding capital improvements.</p>	<p>Routine and preventative maintenance is addressed primarily through Capital Outlay (maintenance budget line) funding. Each CDOC facility is designated a maintenance budget, administered by the Facility Management Services' Maintenance and Construction Manager. The algorithm for the allocation of funds considers a number of factors including age of buildings/</p>

	<p>infrastructure, building square footage, building use and Facility Unique Physical Plant Expenses (FUPPEs). Facility-based projects including preventative maintenance are addressed on an annual basis through the Annual Physical Plant Assessment Process. Appropriations and associated budget allocations for the maintenance line over the past few years are inadequate to fully address routine scheduled maintenance needs. In FY 2017-18, the Department successfully submitted a Decision Item to the Office of State Planning and Budget (OSPB) for an increase to the maintenance budget. Unfortunately, FY2020 funding for the maintenance budget was reduced to previous funding levels. A variety of small, longstanding, maintenance needs were addressed in FY2018. Additional, critical maintenance needs were addressed in FY2019. Unfortunately, with reduced funding in FY2020, the maintenance line was hard pressed to assist facilities and help our systems “to hold on” until replacement could occur.</p>
<p>Have any of your buildings recently undergone a formal energy audit or are any planned? If so, for which buildings?</p>	<p>The most recent energy audits were part of our Energy Performance Contracting (EPC) projects several years ago. EPC projects involving energy measures were performed at the following correctional facilities:</p> <ul style="list-style-type: none"> • Territorial (Cañon City, CO) • Buena Vista (Buena Vista, CO) • Sterling (Sterling, CO) • Arkansas Valley (Crowley, CO) • Limon (Limon, CO) <p>In FY2019, CDOC performed a cursory feasibility evaluation on the following correctional facilities:</p> <ul style="list-style-type: none"> • Trinidad Correctional Facility (TCF) • <i>Denver Reception & Diagnostic Center (DRDC)</i> • <i>Denver Women’s Correctional Facility (DWCF)</i> <p><i>Denver facilities are largely impacted by [SB17-267].</i></p> <p>In FY2021, CDOC plans to initiate a Request for Proposal for an Investment Grade Audit for the Trinidad Correctional Facility (TCF)</p> <p>In FY2021, CDOC also plans to determine the feasibility of a technology-specific EPC project for LED lighting retrofits.</p>
<p>Discuss your agency’s approach to replacing damaged or failing equipment. Is equipment replaced “like for like” or with higher efficiency equipment? Who makes the decision and what criteria is used to make the decision?</p>	<p>Currently, most equipment is replaced “like for like” at the facility level unless a project is planned that includes design and construction. However, newer equipment is often more energy efficient than the old, non-functioning, or failed equipment that is being replaced.</p> <p>If an energy savings option is available on a project for an incremental cost, and if funds are available, we can make a change to the project and include replacement with higher efficiency equipment. Energy costs combined with equipment condition will drive decisions to prioritize energy efficiency projects.</p>
<p>Based on the feasibility study created for your agency by the Colorado Energy Office,</p>	<p>The Colorado Energy Office (CEO) recommends that four (4) of CDOC’s fifteen (15) state owned and operated facilities, that have not previously implemented Energy Performance, have true</p>

<p>what opportunities exist for energy performance contracting? What, if any, barriers exist to implementing EPC in your facilities? How can CEO assist?</p>	<p>potential for Energy Performance Contracting (EPC). The barriers that exist to implementing EPC in CDOC facilities are ongoing EPC financing costs, which limit the annual utilities budget to absorb a greater percentage of EPC financing. In addition, Senate Bill 17-267, may impact CDOC's ability to leverage energy efficiency improvements using the EPC financing vehicle.</p> <p>How can CEO assist? CDOC plans to work with CEO to develop EPC projects, where feasible. Projects will be developed in a staged manner so that CDOC and CEO can thoroughly review and vet the proposed energy/ utility conservation measures. Further, staged timing for construction and implementation of the projects is required due to staffing and housing constraints at our facilities. Recruiting and maintaining complete staffing levels in Corrections is a challenge given that other employers are offering salary, benefits, and work-life balance packages to incentivize new employees and retain current employees in this low unemployment economy.</p>
<p>Describe your agency's due-diligence to explore inclusion of an energy performance contract (EPC) for controlled maintenance and capital renewal budget requests?</p>	<p>CDOC will consider EPCs to implement necessary facility improvements that are included in controlled maintenance and capital renewal budget requests at facilities that have not previously entered into EPC projects and those that are not encumbered by Certificates of Participation (COP) under the State of Colorado's Lease Purchase program.</p>
<p>If EPC is not feasible, what strategies are available to your agency to fund energy efficiency improvements?</p>	<p>Smaller energy efficiency projects are implemented, within a fiscal year, if cost avoidance can be applied to fund small projects, such as lighting replacements.</p> <p>Utility service providers offer rebates and incentives through energy efficiency and demand side management programs which may stretch available CDOC utility funds, and make some smaller projects possible.</p>
<p>Describe your agency's progress in completing a comprehensive LED lighting retrofit throughout your agency by June 30, 2022?</p>	<p>CDOC is funding small, lower-cost LED lighting retrofit projects that show a reasonable payback, on a case-by-case basis. CDOC is considering using Energy Performance Contracts (EPCs) to implement LED lighting retrofit projects at facilities that have not previously entered into EPC projects and those that are not encumbered by Certificates of Participation (COP) under the State of Colorado's Lease Purchase program.</p>
<p>What other resources are needed to ensure that energy efficiency improvements are part of the strategy to reduce energy use in your facility?</p>	<p>Funding and staffing levels, ample and sufficient to evaluate, outline, plan, prioritize, procure, and implement operational improvements, are the two largest constraints. Not only must agencies be fully staffed, but staff members must also have the technical background, training, continuing education, and experience to plan, implement, operate, and maintain existing and new equipment as well as measures. Once installed, measures are only effective if they are properly operated and maintained.</p>
<p>In this section provide any other information about how your agency identifies, plans for, funds, and implements energy efficiency improvements.</p>	<p>Larger projects are ranked in the Capital Construction (CC) /Capital Renewal (CR) and Controlled Maintenance (CM) project requests, which lists hundreds of projects to be funded. However, most of these projects are prioritized based on loss of use of the Facility and relocation of the offender populations if</p>

	the systems fail. Energy efficiency projects are rarely ranked high enough on the list to secure funding in any given funding cycle. Energy Performance Contracting is typically the only way that large energy efficiency improvement projects can be funded.
Renewable Energy Projects. Is your agency planning to develop a PPA? Where (Property or building)? Is your agency considering offering up land for a solar developer for a solar garden or other type of renewable energy project? Where? Is your agency reviewing owned land for use for an undefined renewable energy project? Where?	CDOC has employed Power Purchase Agreements (PPAs) to implement several (seven) on-site photovoltaic (PV) solar projects throughout Colorado. At the present time, we do not have proposals in process for additional Solar PV projects using the PPA mechanism. CDOC participates in a Community Solar Garden project in Sterling, Logan County, CO. In addition, CDOC has a site agreement housing a solar PV array, with the local electric association serving Buena Vista, CO. CDOC is open to discuss the use of Agency land for additional renewable energy projects, as opportunities arise.

FY 2021: Operational Improvements	
	Notes/Comments
List planned FY 2021 operational improvements, project budgets, and anticipated energy savings.	CDOC plans to initiate a feasibility process that will assist the Department in our efficiency, conservation, and maintenance efforts. We anticipate this feasibility process will include some or all of the following activities: site tours and data collection, cursory modeling of energy use intensity, staff interviews, analysis of our identified Controlled Maintenance and Capital Renewal needs at each location, collecting data relevant to site- and centrally-identified energy/water conservation measures, and consideration of incorporating renewables. Pending the outcome of these feasibility studies, we anticipate we will be moving forward with one or more Investment Grade Audits and, ultimately, Energy Performance Contracts.
List prioritized but unfunded operational improvements, budgets, and anticipated energy savings.	Location: Department-Wide <ul style="list-style-type: none"> ○ Arkansas Valley ○ Buena Vista ○ Colorado Territorial ○ Delta ○ Colorado Correctional Center ○ Centennial ○ Limon ○ Sterling ○ Trinidad Project: Building Automation System Controls Preliminary Estimate: \$300,000 Savings: TBD Based on a preliminary study from June 2017, the department needs an estimated \$8,000,000 to upgrade existing deficiencies with the building automation system.

	<p>The study identified items considered the, “Best Bang for Your Buck”, that the department needs to implement in the immediate future to keep systems up, running, and operational, until \$8 million (escalated) in funds can be secured. Due to lack of sufficient funding, the Department may need to take a phased approach and install a few hundred thousand dollars in BAS improvements at a time.</p>
<p>Describe your agency’s process for identifying and prioritizing operational improvements.</p>	<p>Routine and preventative maintenance is addressed primarily through Capital Outlay (maintenance budget line) funding. Each CDOC facility is designated a maintenance budget, administered by the Facility Management Services Assistant Director, that takes into consideration a number of factors including age of buildings, infrastructure, building square footage, building use and Facility Unique Physical Plant Expenses (FUPPEs). Facility-based projects including preventative maintenance are addressed on an annual basis through the Annual Physical Plant Assessment Process. Appropriations and associated budget allocations for the maintenance line over the past few years are inadequate to fully address routine scheduled maintenance needs.</p>
<p>Have any of your buildings recently undergone a formal retro-commissioning study or are any planned? If so, which ones?</p>	<p>CDOC facilities have undergone formal retro-commissioning studies under our Energy Performance Contracts, at the following correctional facilities:</p> <ul style="list-style-type: none"> • Territorial (Cañon City, CO) • Buena Vista (Buena Vista, CO) • Sterling (Sterling, CO) • Arkansas Valley (Crowley, CO) • Limon (Limon, CO)
<p>Describe the role building operators play in supporting Greening Government goals and directives. Is there regular communication with the GGLC rep?</p>	<p>Facility Management Services staff members work with facility Physical Plant staff members on a daily basis.</p> <p>Greening Government goals are shared with staff members via the quarterly Physical Plant Manager (PPM) Meetings. In November of 2019, the Utility Program Manager was asked to serve as the Greening Government Leadership Council (GGLC) representative. As we move through FY 2021, the duties and planned interactions between the GGLC Representative and Physical Plant staff will be developed along with avenues for engagement of operations and maintenance staff at the facilities.</p> <p>Within FMS the Maintenance Technician manages Sprocket, an enterprise management system for facility physical plant work orders and operations and maintenance (O&M) tracking. We continue to develop the program by adding O&M tasks in Sprocket which will help with energy efficiency and further other greening objectives. Facility Management Service is working with Physical Plant Managers and Facility staff to provide training and support services. Over the past two years, CDOC has offered Building Automation Controls (BAS) training and assistance. We also offer state-wide operations and</p>

	<p>maintenance support for chiller systems, generators, and elevators. We are considering adding a state-wide contract for Boilers in the next year or two.</p>
<p>What other resources are needed to ensure that operational improvements are part of your agency's strategy to reduce energy use in your facility?</p>	<p>Funding and staffing, ample and sufficient to evaluate, outline, plan, prioritize, procure, and implement operational improvements, are the two largest constraints.</p>
<p>In this section provide any other information about how your agency identifies, plans for, funds, and implements operational improvements.</p>	<p>Many of the Department's Controlled Maintenance proposed projects have been unfunded for numerous years and result in a Capital Renewal project submittal. Often, this is due to the cost of the project exceeding the \$2 million controlled maintenance top cap and the project requiring a single project phase, as opposed to two, because of the type of critical system improvements that must be completed. This requires reprioritization of the Capital Construction (CC) /Capital Renewal (CR) listing and allows other Controlled Maintenance (CM) projects to move up in priority. All of the CM CC CR projects are ranked based upon loss of use of the Facility and relocation of the offender populations if the systems fail.</p>

FY 2021: Employee Engagement	
	Notes/Comments
<p>Discuss your agency's approach to engaging employees in reducing energy use in your facilities.</p>	<p>Employees of the CDOC are educated through newsletters and Champions across the department. Employees are also asked for sustainability ideas relating to their work areas along with active educational offender engagement.</p>
<p>Discuss agency policies that support energy reduction including flex time or teleworking.</p>	<p>Until March of 2020, when work-from-home practices were put in place for office staff as a result of the COVID-19 Pandemic, teleworking and flex-time were not policies that the Department of Corrections offered. Given the nature of the Department of Corrections' mission, flex time and teleworking are not programs that operations and line staff can easily participate in; however, moving forward, office and administrative staff may be able to continue some form of teleworking. In addition, online live training, or web-based training may provide options to in person training requiring travel.</p>
<p>Discuss resource needs or barriers to greater employee engagement.</p>	<p>CDOC facilities are spread across the state, which sometimes makes the sharing of ideas and engagement with all employees a challenge.</p> <p>Because of our mission, safety and security are generally a higher priority than energy efficiency or water reduction policies.</p>
<p>In this section provide any other information about employee engagement in your agency.</p>	<p>Our Green Team Champions consist of subject matter experts along with correctional staff committed to learning and dedicating time in the CDOC sustainability mission.</p>

FY 2021: Capital Construction (CC) and Capital Renewal (CR) agency requests	
	Notes/Comments
Describe analysis of how requested CC/CR projects conform with the State's High Performance Certification Program?	The Planning section within CDOC's Facility Management Services prepares CC/CR project submittals and estimates to conform with the State's High Performance Certification Program requirements.
Describe analysis of on-site renewable energy generation or renewable clean energy purchases for CC/CR projects?	As we move forward, the Planning section within CDOC's Facility Management Services will coordinate with the Utility Management section in order to determine the feasibility of on-site renewables and clean energy purchases for CC/CR Projects.
Describe how your agency plans to meet requirements under C.R.S. § 24-30-1305.5 for reporting building utility performance data to the Office of the State Architect (OSA) through either a nationally recognized building certification program, a CEO approved utility tracking database, or another OSA accepted procedure for CC/CR projects?	The Colorado Department of Corrections uses the EnergyCAP Utility Tracking Database for all of our owned Facilities.
Describe plans for how at least 20% of parking spaces will be pre-wired for Electric Vehicle (EV) charging, and that at least 5% will have EV chargers installed for CC/CR projects?	EV charging will be included in CC/CR requests. Wiring will be considered when parking lots are re-paved.
Describe how your agency explored options for the electrification of building systems, and such review shall include a full life cycle cost analysis of the impact of electrification for CC/CR projects?	As we move forward, the Planning section within CDOC's Facility Management Services will coordinate with the Utility Management section in order to determine the feasibility and life-cycle cost effectiveness of electrification for CC/RC projects.

FY 2021: General Comments	
	Notes/Comments
Please provide any other comments or feedback related to the Greening Government goal or your agency's efforts.	The Colorado Energy Office plays a key role in the Contract agreement between the State of Colorado and our utility database management vendor, EnergyCAP Inc. CEO must prioritize and ensure that a state contract is in place in order for state agencies and offices to have a continuous and uninterrupted service for our utility invoice uploads (through the Bill CAPture service) and utility data analysis through the overall EnergyCAP program.

The Colorado Energy Office is investigating enterprise energy reduction strategies including capital and operational improvements and renewable energy. Would your agency be interested participating/learning more?

The Colorado Energy Office is encouraged to share information on energy reduction strategies with the Department of Corrections.