Sustainability Performance Plan

FY 2021

Department of Administrative Services

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Senior Sustainability Officers

Approved by Josh Geballe
Commissioner

This report was written in compliance with section 5 of Executive Order 1.

greenergovCT
A Lead by Example Initiative

EO 1 Background

On April 24, 2019, Governor Lamont launched the GreenerGov CT initiative by signing Executive Order 1 (EO 1) which directs Executive Branch agencies to advance environmental leadership and cost savings for taxpayers by reducing greenhouse gas emissions and other sustainability objectives in energy use in buildings and vehicles, water use, and waste disposal.

EO 1 calls on agencies to recommit to and expand the state's Lead by Example (LBE) program to reduce the operating costs and environmental impacts of state government facilities and operations. EO 1 builds on the foundation of the state's LBE program by setting new sustainability goals, listed below, for Executive Branch agencies and invoking deeper levels of commitment and participation.

GHG
45% reduction in GHG emissions below 2001 levels

WATER
10% reduction in water consumption from a FY20 baseline

WASTE
25% reduction in waste disposal from a FY20 baseline

Since the GreenerGov CT initiative was launched, significant progress has been made towards laying the groundwork for expanded LBE initiatives in the future: governance structures were established, baseline data was collected, and financing and project strategies were developed. Additionally, agencies reported completing or making progress on 90+ sustainability projects in FY20 in the annual agency Sustainability Performance Plans. Sustainability Performance Plans are plans drafted each year by Senior Sustainability Officers to detail agency progress and necessary goals, actions, and responsible parties to achieve the targets set in EO 1.

In 2020 and 2021, agencies continued to navigate the COVID-19 pandemic. As many agencies returned to the office in 2021, the GreenerGov CT leadership encouraged agencies to use the return to the office from teleworking as an opportunity to refresh staff practices and to take on new sustainability initiatives. The FY21 Sustainability Performance Plan includes a summary of sustainability actions initiated as part of the "Returning to the Office Greener" call to action.

EO 1 Participation Overview

DAS's Mission

- Support Connecticut's Growth
- To serve our citizens, businesses, state agencies and other branches of government by providing the highest quality services at the lowest possible cost.
- Drive Continuous Innovation - To increase the efficiency and effectiveness of state government using best practices from the public and private sectors.
- Provide Rewarding Careers - To attract and retain a workforce of talented, dedicated public servants committed to leading our great state forward.

FY21 Participation Overview

DAS is a member of the EO 1 Steering Committee. We also managed the first round energy audits across 35 state buildings. This past 2021 we began our first round of solar electricity installations across several state agencies (e.g., 165 Capitol Ave., DOC and DEEP properties, etc.). DAS is a signatory to solar power projects that use the Power Purchase Agreement. This is the case for for all Executive Branch building projects.

Participating Agency Staff

Steve McGirr
David Barkin
Nicholas Ross

Sustainability Projects

including projects relating to infrastructure improvements or behavioral change that took place in owned, leased, or occupied space and were either in progress or completed in FY21

Sustainability Projects

Project 1

What: Install solar power arrays on top of the building.

Where: 165 Capitol Avenue, Hartford CT 06106

Project type: Structural - Renewable energy **Status:** In progress in FY 2021

Benefits: Reduced electricity consumption from carbon-based sources, and reduced costs to the state for energy needs.

Project 2

What: CEPA scoping notices have been issued and construction is scheduled to begin in early 2022.

Where: Kensington Fish Hatchery

Project type: Structural - Renewable energy **Status:** In progress in FY 2021

Benefits: This Project consists of one solar PV system that will reside on the grounds of Kensington State Fish Hatchery. Included in this submission is the proposed site plan for the system. The ground mounted PV system consists of 288 solar panels producing 124kW of electricity. This system will occupy an area of roughly 2/3 acres.

Project 3

What: The ground mounted PV systems of Robinson A, Robinson B and Enfield are all proposed to be on the South side of Enfield Correctional Institution at 289 Shaker Rd, Enfield. These three PV systems abut each other creating one ground mounted solar array. Robinson A consists of 304 solar panels, producing roughly 92kW of electricity. Robinson B consist of 704 solar panels, producing 212kW of electricity. Enfield consists of 608 solar panels, producing 205kW of electricity. Combined these three PV systems will occupy an area that is roughly 1.3 acres of an existing field. This proposed location is roughly 1,050 LF West of a grassland bird mitigation area.

Where: Cheshire and Enfield DOC Properties

Project type: Structural - Renewable energy **Status:** In progress in FY 2021

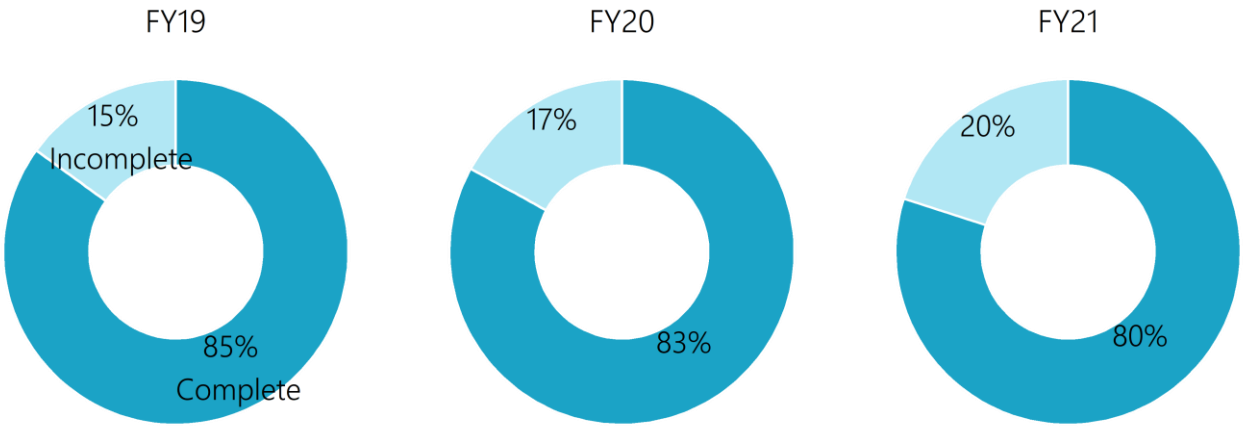
Benefits: The ground mounted PV systems of Robinson A, Robinson B and Enfield are all proposed to be on the South side of Enfield Correctional Institution at 289 Shaker Rd, Enfield. These three PV systems abut each other creating one ground mounted solar array. Robinson A consists of 304 solar panels, producing roughly 92kW of electricity. Robinson B consist of 704 solar panels, producing 212kW of electricity. Enfield consists of 608 solar panels, producing 205kW of electricity. Combined these three PV systems will occupy an area that is roughly 1.3 acres of an existing field. This proposed location is roughly 1,050 LF West of a grassland bird mitigation area.

Performance Data

The following data was pulled from EnergyCAP, the state's utility tracking software, on December 9, 2021. Note that utility data on agencies occupying space owned by another state agency may not be linked to their EnergyCAP accounts.

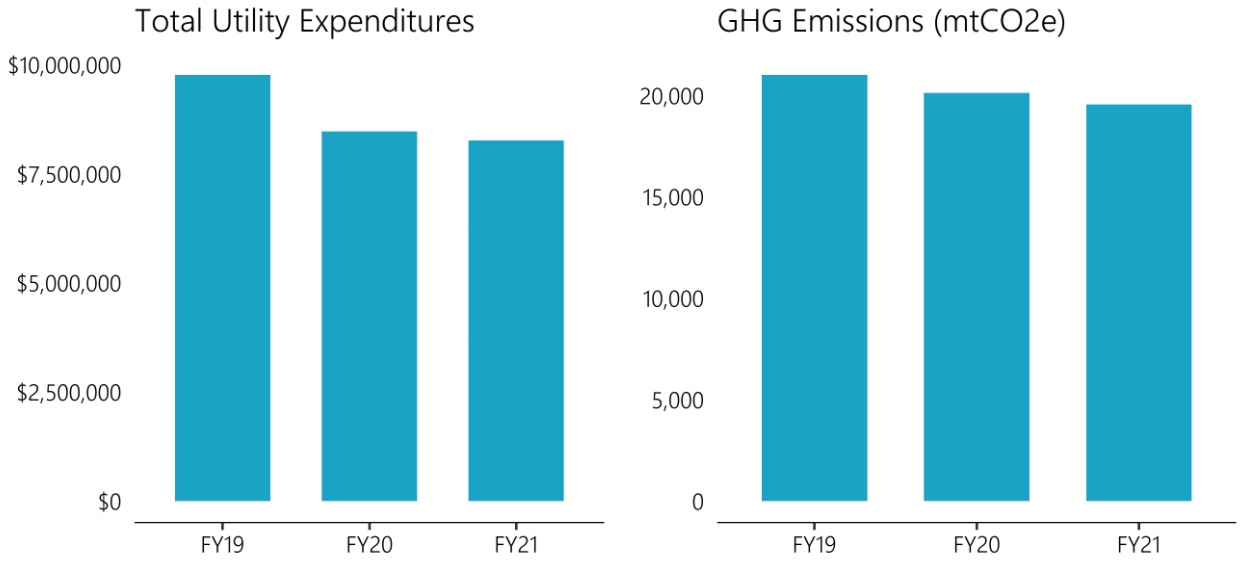
Data Completeness

The charts below display the estimated percent of utility data for DAS entered into EnergyCAP. More recently uploaded data may still be 'in queue' awaiting processing by EnergyCAP and will not be reflected in this report.



Data Trends, FY19-FY21

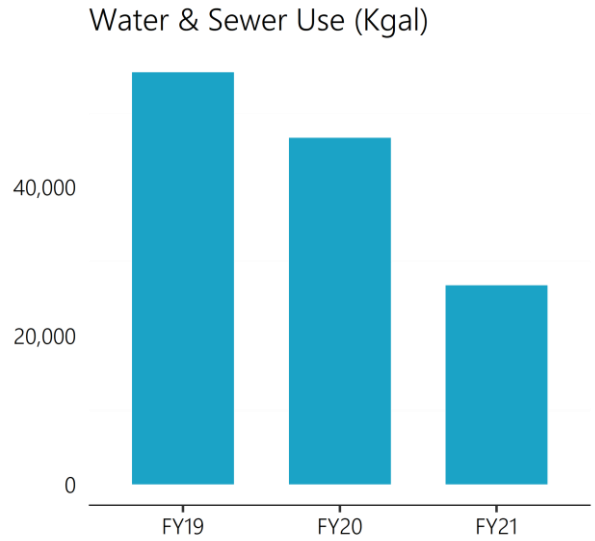
The charts below summarize the total utility expenditures and total GHG emissions for DAS for FY19-FY21. Keep in mind that data that is missing or not yet processed in EnergyCAP may cause these numbers to be artificially low.

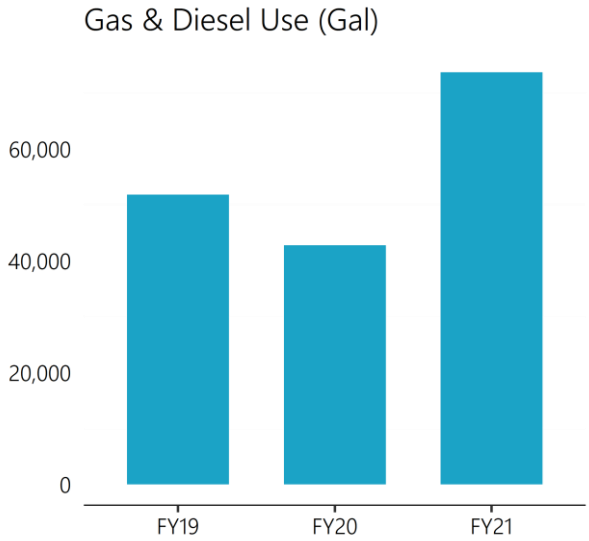


Performance Data cont.

Data Trends, FY19-FY21 - Continued

The charts below summarize the water and gas/diesel use for DAS for FY19-FY21. Keep in mind that data that is missing or not yet processed in EnergyCAP may cause these numbers to be artificially low.





Detailed Utility Use and Cost Data

The table below summarizes the utility use and cost data for DAS for FY19-FY21 according to data pulled from EnergyCAP on December 9, 2021. Keep in mind that this data may be incomplete.

		Use				Cost			
Commodity	**Unit**	**FY19**	**FY20**	**FY21**	**FY19-21 Change**	**FY19**	**FY20**	**FY21**	**FY19-21 Change**
Electric	kWh	43,754,029	39,204,610	32,442,465	-25.9%	$6,815,464	$5,783,683	$5,001,961	-26.6%
Natural Gas	CCF	1,031,739	903,374	920,110	-10.8%	$887,675	$763,140	$808,655	-8.9%
Chilled Water	Ton Hr	2,236,779	2,338,649	2,606,169	+16.5%	$1,085,819	$910,084	$1,098,021	+1.1%
Oil	Gal	7,559	3,767	4,824	-36.2%	$15,368	$6,385	$8,462	-44.9%
Steam	MLB	9,897	14,397	14,266	+44.1%	$364,714	$464,655	$518,188	+42.1%
Vehicle Gasoline	Gal	51,862	42,804	73,311	+41.4%	$139,508	$103,586	$185,476	+33.0%
Vehicle Diesel	Gal	-	1	422	-	-	$3	$1,186	-
Total GHG Emissions	**mtCO2e**	**21,011**	**20,121**	**19,550**	**-7.0%**	**-**	**-**	**-**	**-**
Water	Kgal	28,585	23,973	13,668	-52.2%	$297,555	$279,764	$179,850	-39.6%
Sewer	Kgal	26,865	22,666	13,136	-51.1%	$160,446	$164,341	$465,319	+190.0%
Total	-	-	-	-	-	**$9,766,549**	**$8,475,641**	**$8,267,119**	**-15.4%**

*Gasoline and diesel costs estimated based on average monthly cost from EIA.gov, $2.53 for gasoline and $2.81 for diesel in FY21; $2.42 for gasoline and $2.96 for diesel in FY20; $2.69 for gasoline and $3.25 for diesel in FY19.

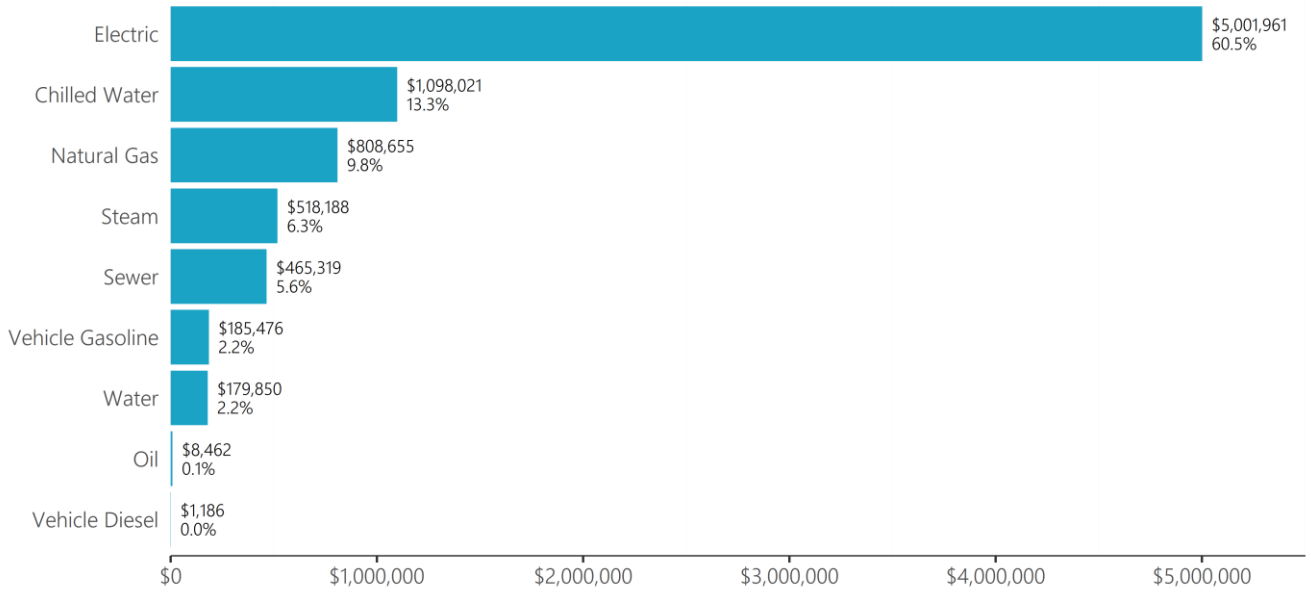
Performance Data cont.

FY21 Data Snapshot

The charts below highlight the breakdown of utility expenditures and GHG emissions by commodity for FY21.

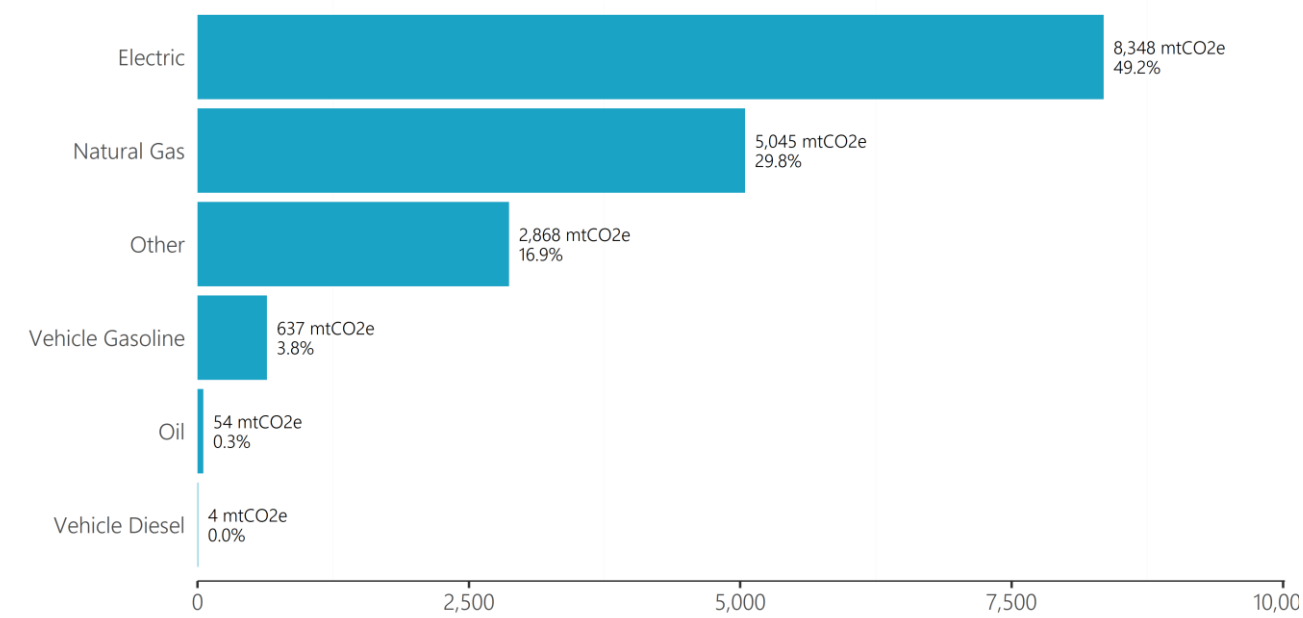
Commodity Cost Breakdown, FY21

The chart below represents the breakdown of commodity costs at DAS in FY21.



GHG Emissions Breakdown, FY21

The chart below represents the breakdown of GHG emissions by commodity at DAS in FY21.



Return to the Office Greener

In FY21, the GreenerGov CT leadership encouraged agencies to use the return to the office from teleworking due to the COVID-19 pandemic as an opportunity to refresh staff practices and habits and to take on new sustainability initiatives. Eleven actions were presented as possible strategies for a more sustainable return to the office, and agencies were asked to pick three actions not already in process. The actions for DAS are highlighted below.

Returning to the Office Greener Suggested Actions

1.	Identify agency vehicles which could be transitioned to electric models.	✓
2.	Have a No-Cost retro commissioning scoping study to identify HVAC improvement and controls opportunities.	
3.	Sign up a building to participate in Eversource's Strategic Energy Management program.	
4.	Have a free building energy audit performed to identify basic opportunities to upgrade lighting or weatherization.	✓
5.	Perform a water audit to identify opportunities for fixture replacement or conservation actions.	
6.	Check for water leaks using the Fix-A-Leak Checklist.	
7.	Assess the feasibility of hosting solar on your buildings or property.	✓
8.	Optimize your dumpster size and pickup schedule.	✓
9.	Start an organics diversion/collection program.	✓
10.	Tune up recycling practices.	
11.	Make a Green Team of staff invested in making space and operations more sustainable.	
12.	Other actions	

COVID-19 Impact

Impact of COVID-19 on DAS's ability to make progress on the goals of EO 1 in FY21

Minimal.

COVID-19 changes that have led to a positive sustainability outcome that will continue after the pandemic

Strategically evaluating building footprint needed for agency work	✓
Reassessing agency fleet	✓
Holding virtual meetings as a more regular practice	✓
Increased telework as a regular practice	✓
No changes to report	
Other	

Future Planning

Status of FY20 Plans

	Progress has been made	Progress has stalled	Plans have been completed.	Stated plans no longer a priority	Other
GHG Reduction	✓				
Water Use Reduction		✓			
Waste Reduction	✓				

Sustainability Plans Beyond FY21

GHG Reduction

Conversion of ICE to EV or Hybrid. Install charging stations for EVs.

Water Use Reduction

No water use reduction plans reported.

Waste Reduction

Revise waste collection contracts to include more reporting requirements.

Resources Needed

Barriers encountered while making EO 1 progress in FY21

Funding	✓
Staffing	✓
Technical expertise	
No barriers encountered	
Other	

Specific type of support or resources needed to make progress on future sustainability projects

Funding and staffing resources.