

State of Connecticut
FY 2020

Sustainability Performance Plan

Department of Public Health

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Senior Sustainability Officer



Approved by Deidre S. Gifford, MD, MPH
Acting Commissioner



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

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 120+ sustainability projects in FY19 in the first 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, the COVID-19 pandemic brought significant changes to the operations of state agencies as agencies responded to the crisis. The impact of the pandemic on the sustainability goals of EO 1 is not yet known, but some effects will be documented in the FY20 Sustainability Performance Plans and the GreenerGov CT Progress Report.

DPH and EO 1

DPH's mission

The Department of Public Health's sustainability mission is to pursue and implement strategic organizational initiatives that will foster sustainable outcomes through smart usage of energy and water and waste solutions at its facilities.

DPH's FY20 participation overview

DPH participates in 3 Project Teams. The renewable energy, energy efficiency and sustainable water use project teams and participated in various activities in FY2020. The Water Sustainability Lead for DPH participated in meetings, provided subject matter expertise, contributed to, and lead the effort in developing the Water Audit for the Sustainable Water project. Furthermore, the Energy Efficiency Lead for DPH coordinated and facilitated committee meetings for the team and participated in several meetings providing subject matter expert information. Additionally, the EnergyCAP Invoice uploader ensured timely update of the DPH utility bills in EnergyCAP necessary in establishing the baselines and benchmarks for evaluating the success of the initiative. Finally, DPH completed the 2020 Data Collection Contacts Survey.

FY20 Sustainability Projects

No sustainability projects reorted for FY20.

DPH staff involvement in EO 1

Steven Harkey
Water Sustainability Project

Dan Fisher
Energy Efficiency Project

Brian Toal
Renewable Energy

Danielle Pare
Energy CAP Invoice Uploader

Sue Morin
Building Inventory and Meter Correlating
Liaison (State Public Health Lab)

Daniel Velez
Procurement Supply Stream

Performance Data

The following data was pulled from EnergyCAP, the state's utility tracking software, on March 15, 2021. Note that utility data on agencies occupying space owned by another state agency may or may not be linked to their EnergyCAP accounts.

Total Utility Costs

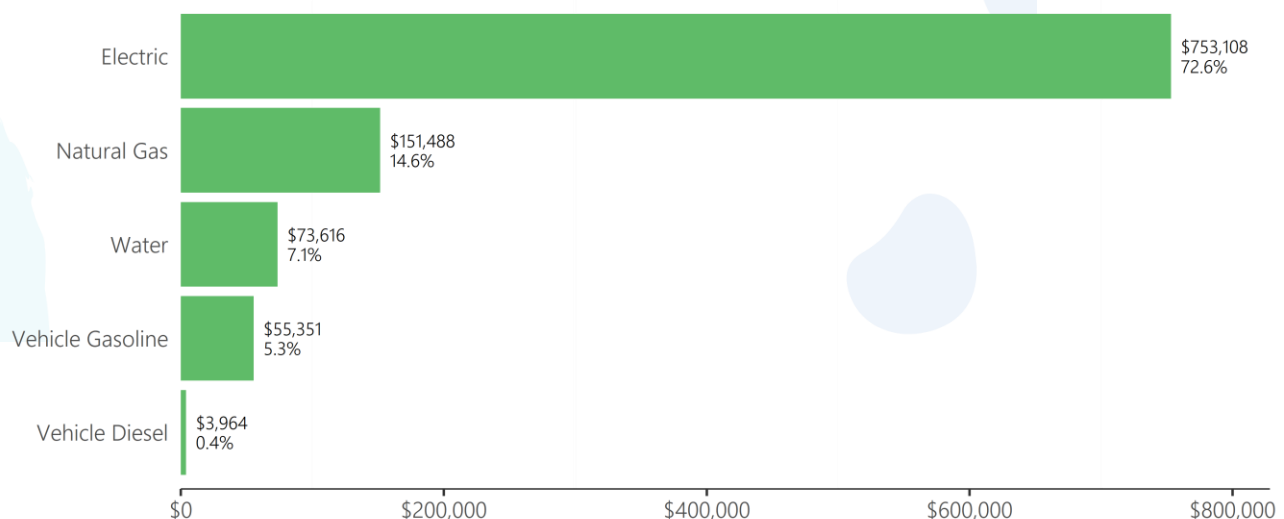
Commodity	Unit	Use			Cost		
		FY19	FY20	Change	FY19	FY20	Change
Electric & Natural Gas	MMBtu	46,373	45,984	-0.8%	\$1,015,650	\$904,596	-10.9%
Other Building Energy	MMBtu	-	-	-	-	-	-
Vehicle Gasoline	Gal	27,392	23,355	-14.7%	\$70,398	\$55,351	-21.4%
Vehicle Diesel	Gal	350	1,339	+283.1%	\$1,111	\$3,964	+256.6%
Total GHG Emissions	mtCO2e	3,104	3,067	-1.2%	-	-	-
Water	Kgal	4,707	6,922	+47.1%	\$48,472	\$73,616	+51.9%
Total	-	-	-	-	\$1,135,631	\$1,037,526	-8.6%

*Gasoline and diesel costs estimated based on average weekly cost from EIA.gov, \$2.37 for gasoline and \$2.96 for diesel in FY20 and \$2.57 for gasoline and \$3.18 for diesel in FY19.

**Other Building Energy sources include oil, propane, steam, and chilled water.

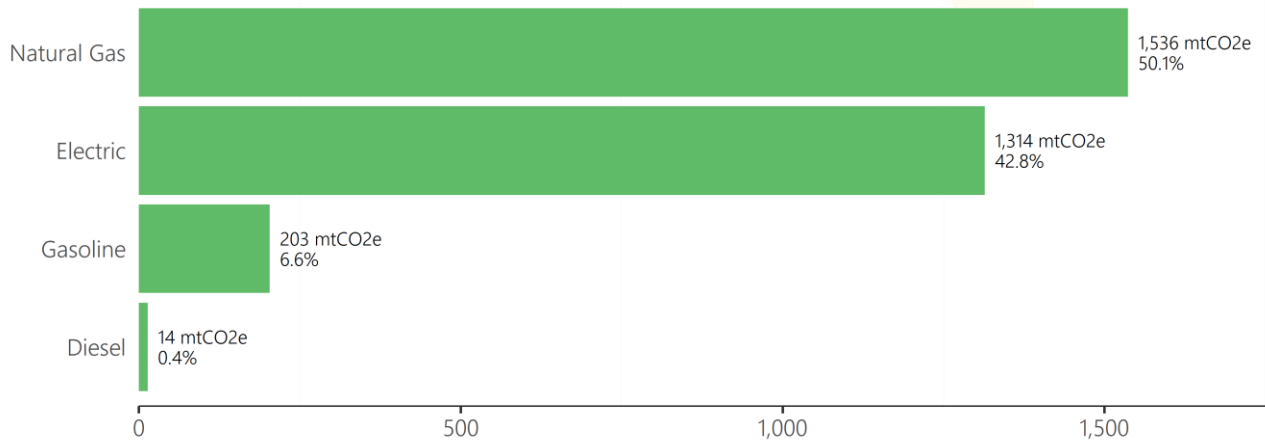
Commodity Cost Breakdown, FY20

The chart below represents the breakdown of commodity costs at DPH in FY20.



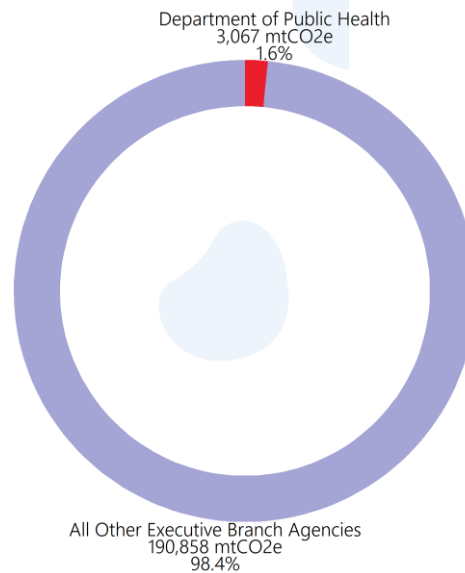
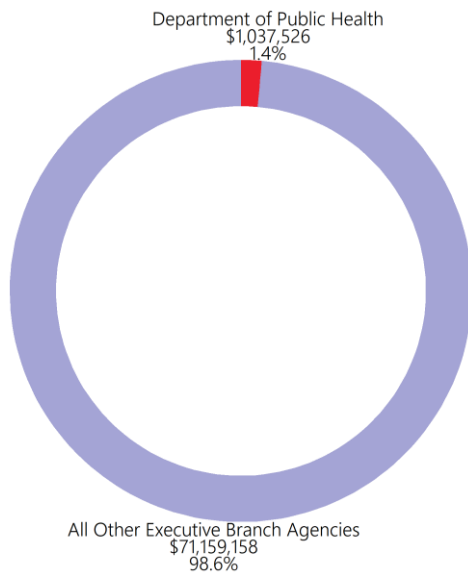
GHG Emissions Breakdown, FY20

The chart below represents the breakdown of GHG emissions by commodity at DPH in FY20.



Share of Utility Costs and GHG Emissions

The two charts below display DPH's proportion of the FY20 total utility cost and the total GHG emissions of all agencies participating in EO 1.



Future Planning

GHG Reduction (energy/fleet related)

Status of FY19 Plans	DPH FY2019 plan proposed pursuing the use of solar energy to supplement the electrical power needs of the State Public Health Laboratory (SPHL) complex. This initiative was not implemented due to the impact of COVID and the department's role in responding to the pandemic.
Planned FY21 Projects	DPH will work on conducting an energy audit at the SPHL complex. This detailed energy audit will help to identify gaps in energy use and consumption and inform strategies and best practices for ensuring sustainable energy use at these complex.

Water Use Reduction

Status of FY19 Plans	DPH intended to perform a cost benefit analysis related to a water use reduction initiative at the State Public Health Laboratory. This included metering the water supplied to the chilling units which is eventually evaporated off. The savings achieved would be related to the water return via the sewer charges. The concept to build an infrastructure to capture rainwater from the roof, chemically treat it and allow it to be used in the cooling towers has not been addressed. These initiatives were not implemented due to the impact of COVID and the department's role in responding to the pandemic.
Planned FY21 Projects	The Department will conduct a water audit at the SPHL Facility and pursue the implementation of the activities outlined in the FY2019 plan.

Waste Reduction

Status of FY19 Plans	DPH proposed implementing a sustainability sensitization campaign to improve our waste collection and management at the 410 Capitol Avenue complex. With the emergence of COVID, staff were forced to telework, resulting in minimal impact on waste production. Moreover, with most staff working remotely, it became impossible to implement said initiative. On the other hand, due to the role of the State Public Health Laboratory in the response to the COVID crisis, the department anticipated an increase in biohazard waste production in 2020 due to COVID related activities. We are happy to report that the increase was controlled due to the previously implemented educational sessions and waste management sensitization campaign provided to each of the Laboratory sections and the diligent efforts by the Scientific Support section to maintain efficiency. By controlling the number of autoclave cycles, we decreased the amount of electrical energy and water used by the sterilization process as evident in the number of waste cycles utilized. Listed are the historical average number of autoclave cycles for: FY2015 = 81, FY2016 = 74, FY2017 = 75, FY2018 = 54, FY2019 = 44, FY2020 = 62. The laboratory began the implementation of a change in this process in the summer of 2018 and fully completed the employee education in 2019. The average number of cycles significantly improved especially during the summer months. The FY2020 numbers were anticipated to be higher due to the pandemic year. The actual values tracked lower than the years prior to FY2018.
Planned FY21 Projects	The department intends to pursue the waste reduction sensitization campaign as proposed in the FY2019 plan once activities returns to normal and staff return to the complex.

COVID-19 Impacts

Impact of COVID-19 on agency's ability to make progress on the goals of EO 1 in FY20

Due to COVID-19, staff at the 410 Capitol Ave complex were directed to telework resulting in a minimal footprint in the building. This is reflected in the reduction of water, waste and energy use in the building space occupied by DPH. Conversely, the State Laboratory at Rocky Hill, CT was fully staffed and significantly involved in the response to the crisis. Considering the pandemic and the public implications, the department's focus shifted and as such, the proposed sustainability projects could not hold.

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: DPH have not adopted any policy changes on any of the above-mentioned practices to occur beyond the pandemic. However, all of these practices listed would be given consideration in light of its potential impact on sustainability outcomes.**

Resources Needed

Barriers encountered while making EO 1 progress in FY20

The SPHL was required to increase the air handling capacity for the building due to the 24/7 coverage required for COVID-19 related response activities. This enhanced capacity has resulted in higher energy needs to ensure the safety of the employees reporting to the building on and off hours. Prior to the pandemic, air handling capacity was automatically decreased from 7 PM to 7 AM, Monday through Friday and on weekends as an energy saving initiative.

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

Financial and leadership support.