

Fleet



Energy



Water



Solid Waste



Procurement



Greenhouse Gas



DEPARTMENT OF
ADMINISTRATION
ENTERPRISE SUSTAINABILITY

2018 ANNUAL REPORT

sustainability.mn.gov

September 20, 2019

Governor Tim Walz and Lt. Governor Peggy Flanagan have set a bold vision to reduce Minnesota's carbon footprint and lead the nation in reducing greenhouse gas emissions. In April 2019, Governor Walz issued Executive Order 19-27 affirming the State of Minnesota's goals to reduce greenhouse gas emissions, waste, energy and fuel consumption, water usage, and the sustainable procurement of goods and services in government operations. This report tracks our progress towards meeting those aggressive goals.

In order to achieve that bold vision, we will need to build on our leadership and success in the following areas:

- Established the Office of Enterprise Sustainability to assist the 24-cabinet level state agencies in achieving their sustainability goals.
- Created a web-based Sustainability Reporting Tool designed to track progress towards achieving sustainability goals and provide transparency in government operations at sustainability.mn.gov.
- Published the inaugural Enterprise Sustainability Annual Report.
- Increased the use of renewable energy in state agency operations, including several solar installations on the Capitol Complex.
- Significantly increased the overall fuel efficiency of the fleet by adding hybrids, electric vehicles (EV) and several EV charging stations at state buildings.

Moving forward, we will also focus our energies on increasing the tools and resources available to agencies to meet our most aggressive goals. We will create, innovate and when applicable, borrow best practices from the private sector.

Governor Walz's direction for sustainable operations provides a real opportunity to position our state as a leader, not only here in Minnesota, but nationally and internationally. With the creation of the Office of Enterprise Sustainability and the Sustainability Reporting Tool, we have developed nation-leading collaboration and transparency tools to more effectively reduce state government's carbon footprint.

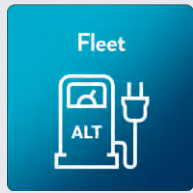
By working together, we can advance a "One Minnesota" vision that addresses climate change, builds a more resilient Minnesota, and protects current families and future generations.

Sincerely,



Alice Roberts-Davis, Commissioner
MN Department of Administration

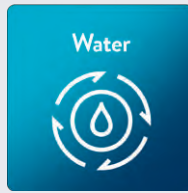
2018 Enterprise Score Card



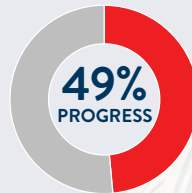
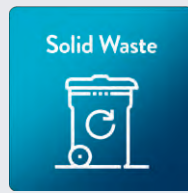
Goal:
30% reduction
of fossil fuel use
by vehicles and
equipment by
2027.



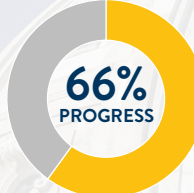
Goal:
30% reduction
in consumption
of energy per
square foot by
2027.



Goal:
15% reduction
in water use by
2025.



Goal:
75% of solid
waste is
recycled or
composted by
2030.



Goal:
25% of total
spending on
priority
contracts is
sustainably
purchased by
2025.



Goal:
30% reduction
of greenhouse
gas emissions
by 2025.

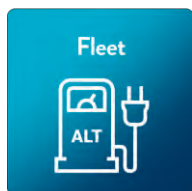
\$32,207,790

In avoided costs (2005-2018)

166,302

metric tons CO₂e avoided annually

Executive Summary



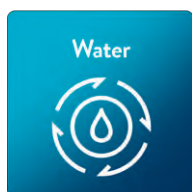
Fleet

State operations increased fuel consumption by 5% in 2018. Colder weather reduced miles per gallon and more snowfall required additional snow removal. The State increased the number of hybrids and electric vehicles by 38%. State agencies continue to purchase more fuel-efficient vehicles with an EPA emission score rating of 7 or better and explore ways to reduce vehicle miles traveled and idling. The Pollution Control Agency expanded the number of miles driven in hybrids by nearly 30% and the Metropolitan Council ordered 8 electric buses for the new C line.



Energy

Energy consumption increased by 7% from 2017 to 2018 because 2018 had both a warmer summer and a colder winter. Despite the weather, some agencies saw progress. MnDOT owns and operates 1,075 buildings with over 6.6 million square feet and achieved consistent energy savings through building automation, equipment and lighting upgrades. Minnesota Housing's new "green lease" for their offices included LED lighting, light harvesting and submetering of energy and water usage.



Water

Water is a challenging area, as some agencies have water intensive operations. The State needs to better understand how water is being used. The Department of Natural Resources' largest use of water is at their fish hatcheries. They are modernizing the system and anticipate improved water efficiency. MnDOT audited water use at 125 sites using a tool like the EPA's WaterSense assessment. The Office of Higher Education's (OHE) landlord reduced their water use in landscaping irrigation by 67% helping OHE meet their water goal.



Solid Waste

The State's ability to meet our solid waste goal is dependent on the availability of organics recycling. The Department of Corrections, working with hog farmers to repurpose food waste, has reached a 48% diversion rate. The Department of Labor and Industry worked with their landlord to implement a new recycling system, doubling their diversion rate. The Department of Administration and the Pollution Control Agency developed a waste hauling contract to expand recycling and organics collection across the enterprise.



Procurement

In 2018, the State purchased \$22 million in sustainable products as measured by third party certifications and other criteria. The Pollution Control Agency and the Office of State Procurement were recognized nationally by the Sustainable Purchasing Leadership Council for their new sustainable office furniture contract. 100% of cleaning chemicals, carpet and flooring, office furniture, computers and imaging equipment purchased are sustainable.



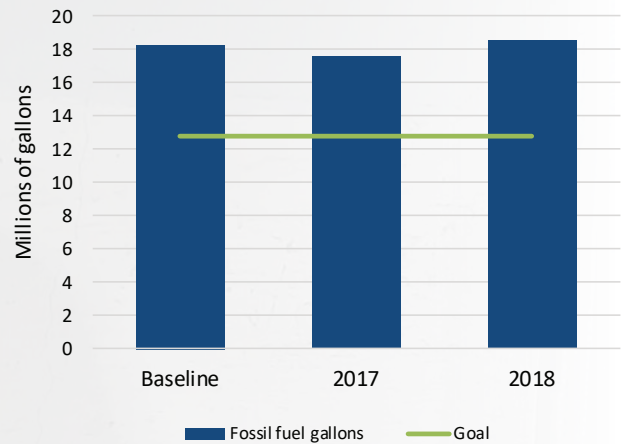
Greenhouse Gas Emissions

Reductions in greenhouse gas emissions in state government operations is largely due to the decarbonization of the electricity grid and long-term reductions in energy use. The Metropolitan Council created a green partnership with Xcel Energy to produce and purchase clean, renewable energy and allow the Council to operate its wastewater and transit systems exclusively on energy from renewable sources by 2040. The Department of Administration created a one-of-a-kind on-site solar master contract. The contract has been used to procure over one megawatt of solar in its first year.

FLEET

18.6 million fossil fuel gallons consumed in 2018

Fossil Fuel Gallons Used



Millions of gallons

Baseline	18.3
2017	17.5
2018	18.6
Goal	12.8

ACCOMPLISHMENTS:

- Control Agency expanded the number of miles driven in hybrids by nearly 30%.
- The Metropolitan Council ordered 8 electric buses for the new C line.

BARRIERS:

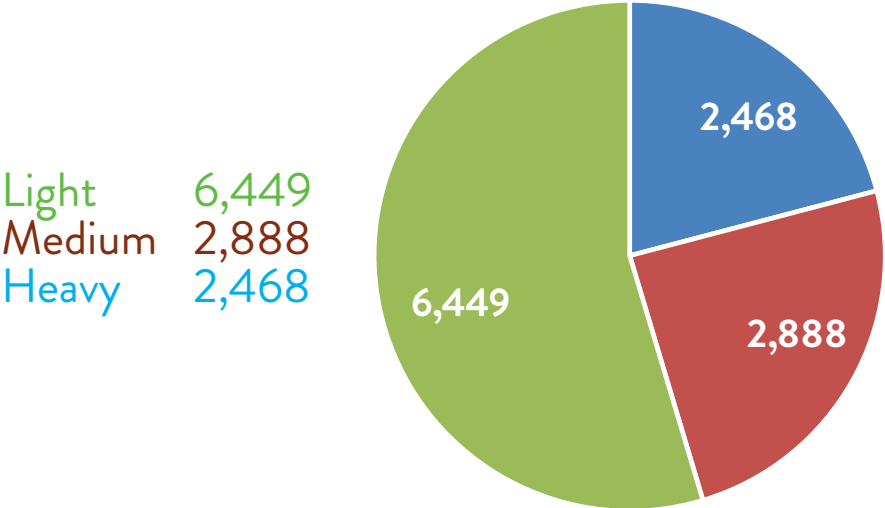
- Lack of Level 2 electric vehicle chargers at agency locations.
- Lack of Direct Current Fast Chargers (DCFC) along the most traveled highways.
- Lack of regional availability of electric vehicles.

**The 2018 report includes corrections to 2017 data*

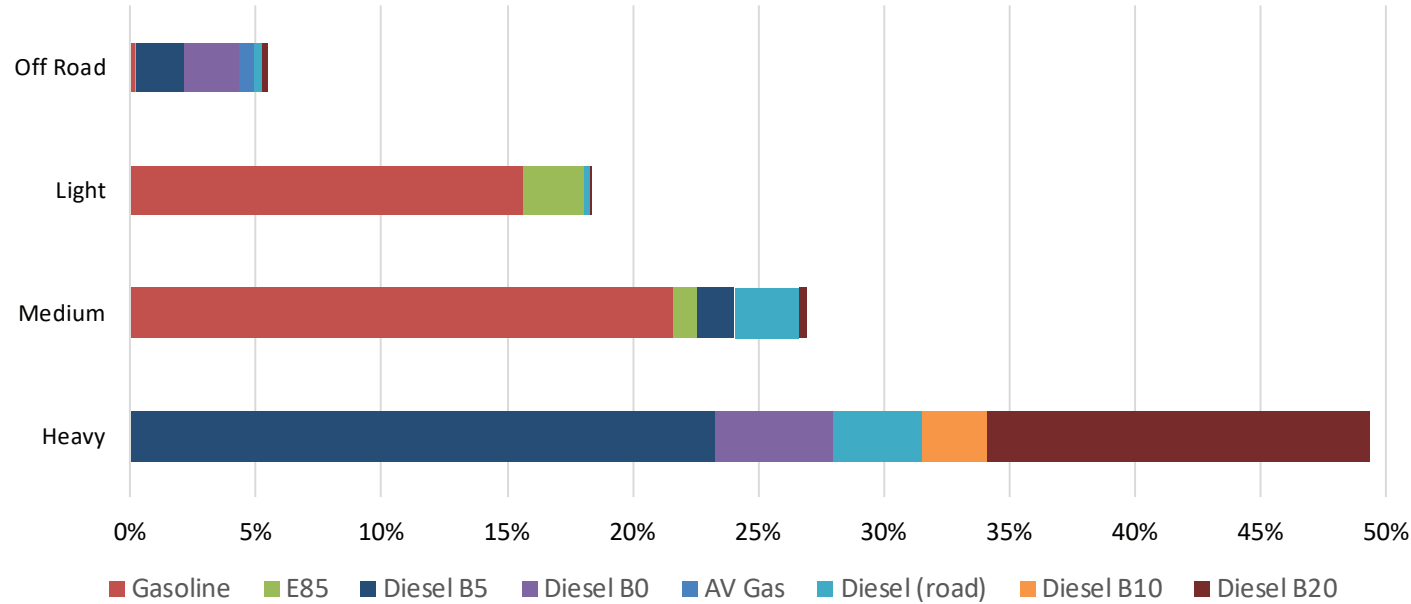
Fleet Significant Indicators

757 Light vehicles with both a high miles per gallon and low emissions rating

Count of Vehicles by Segment



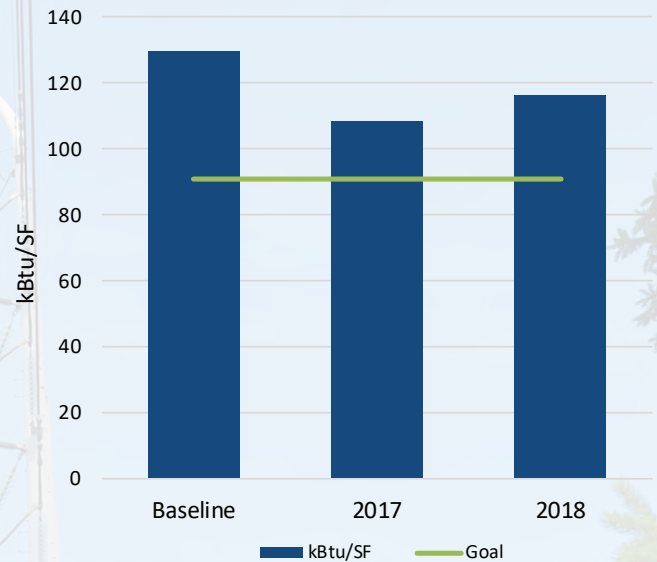
Breakdown of Total Gallons by Fleet Segment: 2018



ENERGY

116 kBTU per square foot
consumed in 2018

Energy Used per Square Foot



kBTU/SF

Baseline	130
2017	108
2018	116
Goal	91

ACCOMPLISHMENTS

- MnDOT owns and operates 1,075 buildings with over 6.6 million square feet and achieved consistent energy savings through building automation, equipment and lighting upgrades.
- Minnesota Housing's new "Green Lease" for their offices included LED lighting, light harvesting and submetering of energy and water usage.

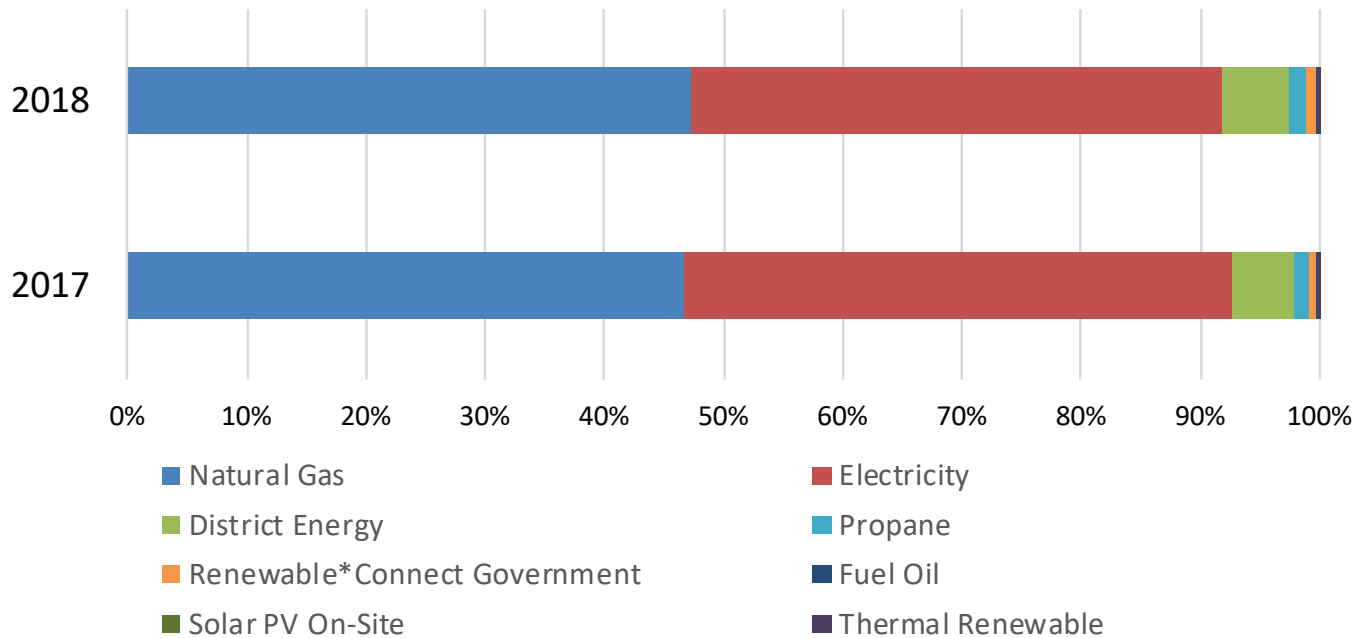
BARRIERS

- The State lacks funds to establish an energy efficiency revolving fund to spur quick-wins at State owned facilities.
- Building information systems (BIS) are needed to increase awareness to drive behavior change and preventative maintenance.

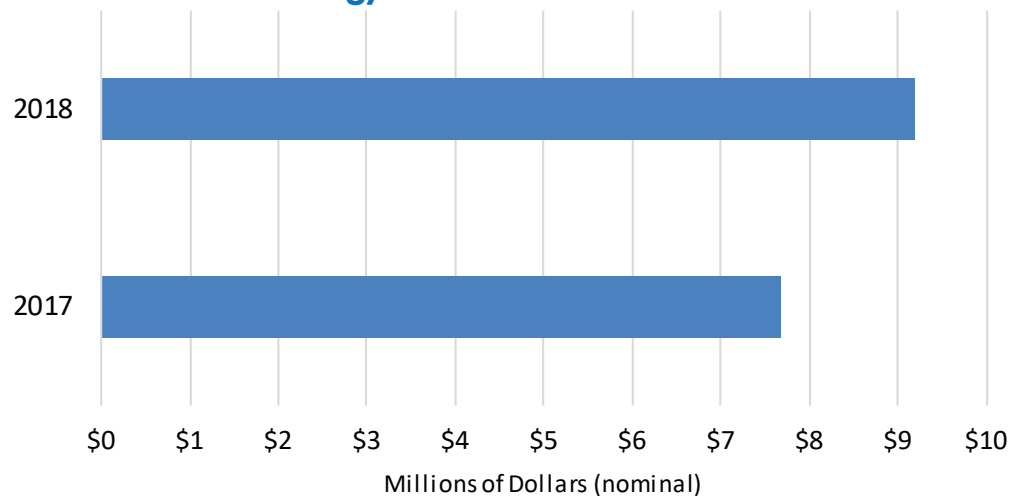
**The 2018 report includes corrections to 2017 data*

Energy Significant Indicators

Breakdown of Total Energy Use



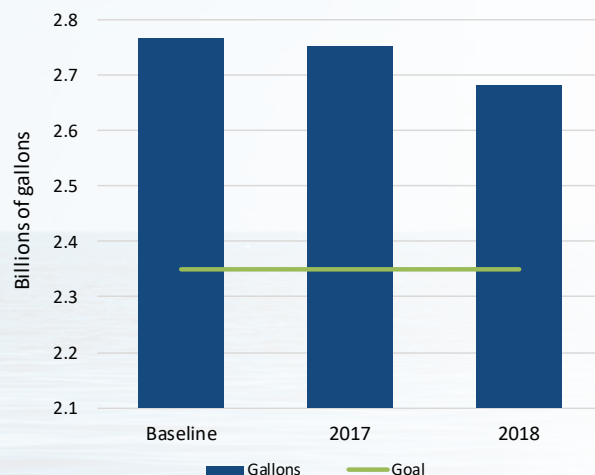
Annual Avoided Costs due to Energy Conservation Measures



WATER

2.68 billion gallons
consumed in 2018

Water Consumed



Billions of gallons

Baseline	2.77
2017	2.75
2018	2.68
Goal	2.35

ACCOMPLISHMENTS

- MnDOT audited water use at 125 sites using a tool like the EPA's WaterSense assessment.
- The Office of Higher Education's (OHE) landlord reduced their water use in landscaping irrigation by 67% helping OHE meet their water goal.

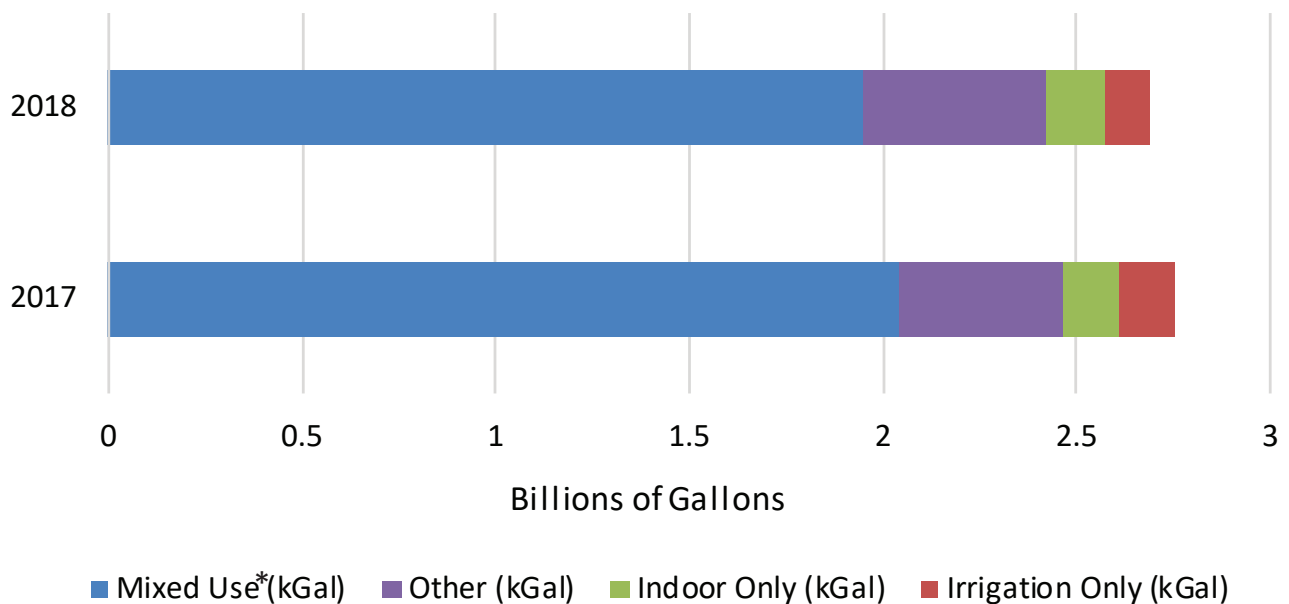
BARRIERS

- Water conservation is a new area of focus for our agencies.
- Many campuses are not metered at the building level.
- Landscape irrigation is a significant contributing factor to increases in enterprise water consumption.

**The 2018 report includes corrections to 2017 data.*

Water Significant Indicators

Breakdown of Water Consumption



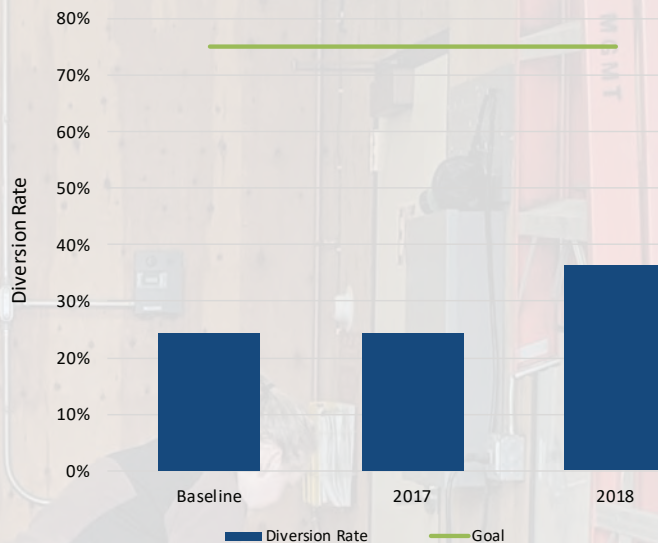
**Mixed use is water consumed both inside and outside of the facility and not metered separately.*

SOLID WASTE

31.2 million pounds of municipal solid waste.



Solid Waste Diverted from Landfills



Diversion Rate

Baseline	24%
2017	24%
2018	36%
Goal	75%

ACCOMPLISHMENTS

- The Department of Labor and Industry worked with their landlord to implement a new recycling system, doubling their diversion rate.
- The Department of Administration and the Pollution Control Agency developed a waste hauling contract to expand recycling and organics collection across the enterprise.

BARRIERS

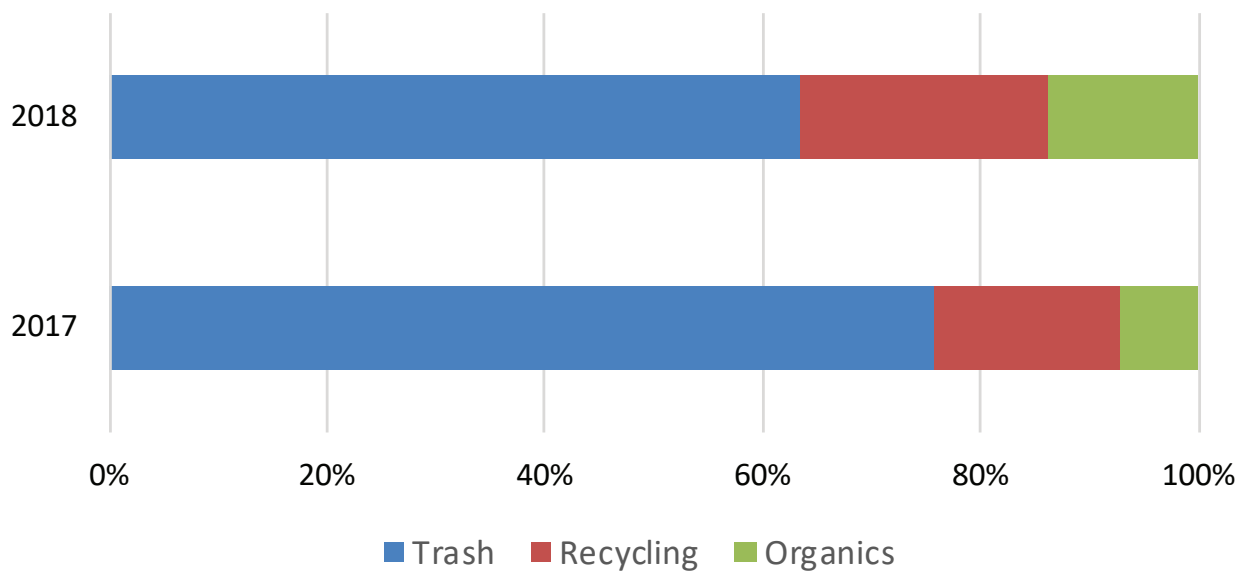
- Lack of an adequate number of vendors who accept organic waste in Greater Minnesota.
- Lack of an accurate means of measuring solid waste weight at several leased facilities.

**The 2018 report includes corrections to 2017 data.*

Solid Waste Significant Indicators

	2017	2018
Pounds of Organics Recycling per FTE	90	107
Reams of 8.5x11 paper purchased	308,270	364,440
Percentage of EPEAT-registered units purchased out of all EPEAT-eligible units	86%	94%

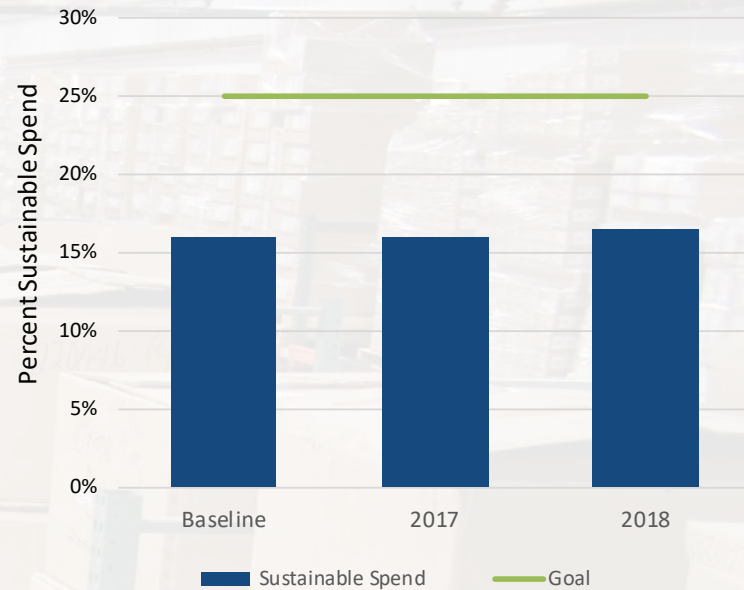
Breakdown of Solid Waste Totals



PROCUREMENT

\$21.8 million in sustainable spend in 2018

Sustainable Spend



Sustainable Spend

Baseline	16%
2017	16%
2018	17%
Goal	25%

ACCOMPLISHMENTS

- The Pollution Control Agency and the Office of State Procurement were recognized nationally by the Sustainable Purchasing Leadership Council for their new sustainable office furniture contract.
- 100% of cleaning chemicals, carpet and flooring, office furniture, and computers and imaging equipment purchased are sustainable.

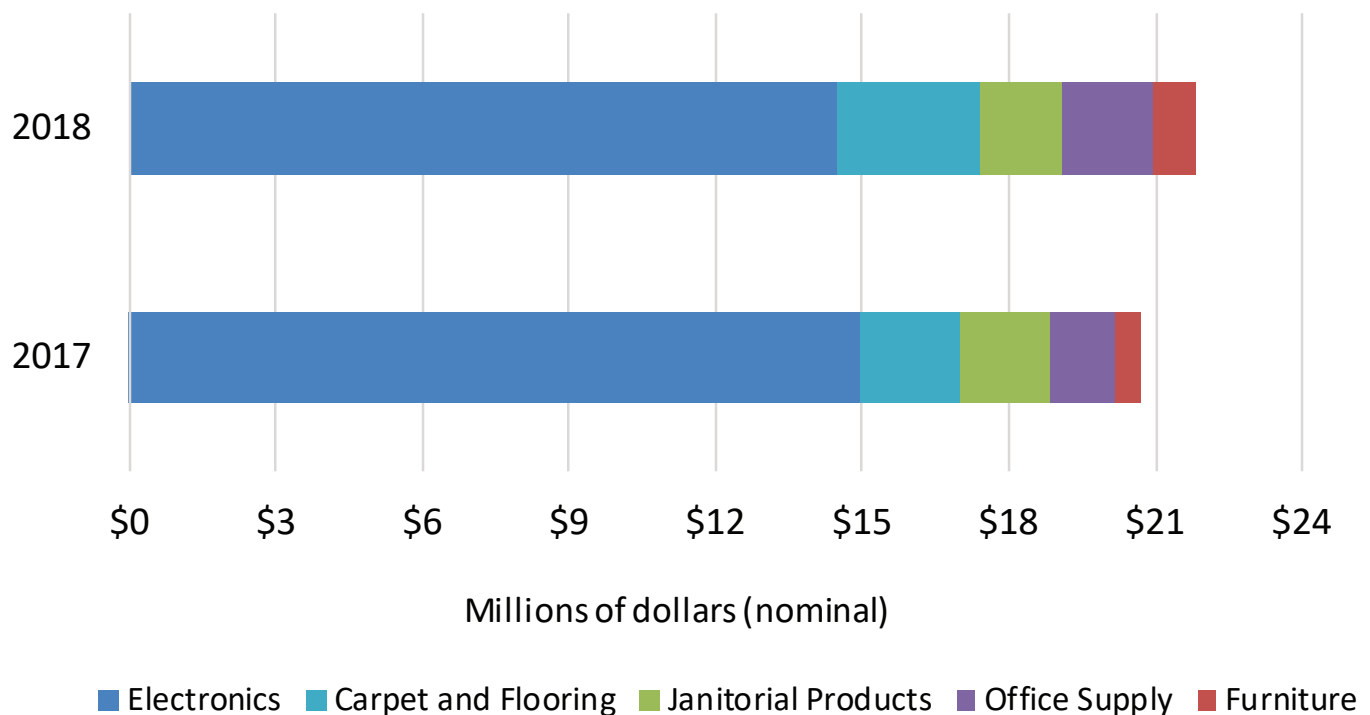
BARRIERS

- Need to train buyers to select sustainable products.
- Reporting at the agency level cannot be determined based on limitations in SWIFT, the state's procurement software.

Procurement Significant Indicators

	SUSTAINABLE SPEND	
Priority Contracts*	2017	2018
Electronics	\$14,940,586	\$14,474,508
Furniture	\$526,644	\$892,825
Janitorial Products	\$1,864,567	\$1,742,933
Office Supplies	\$1,324,231	\$1,823,410
Carpet and Flooring	\$2,058,878	\$2,910,684

Breakdown of Sustainable Spend



**Selected because they have environmental impact, high use, potential for improvement.*

GREENHOUSE GASES

*679,578 metric tons
CO₂e of greenhouse gas
emissions in 2018*

Total Greenhouse Gas Emissions



Metric tons CO₂e

Baseline	831,888
2017	657,004
2018	679,578
Goal	582,322

ACCOMPLISHMENTS

- The Metropolitan Council created a green partnership with Xcel Energy to produce and purchase clean, renewable energy and allow the Council to operate its wastewater and transit systems exclusively on energy from renewable sources by 2040.
- The Department of Administration created an innovative on-site solar master contract. The contract has been used to procure over one megawatt of solar in its first year.

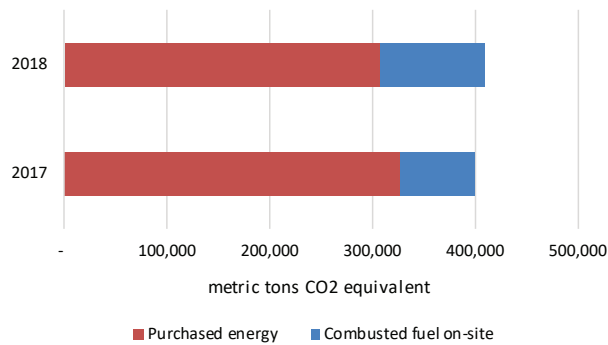
BARRIERS

- Fleet emissions have increased due to more miles driven.
- More focus needs to be placed on the electrification of the fleet and the built environment.

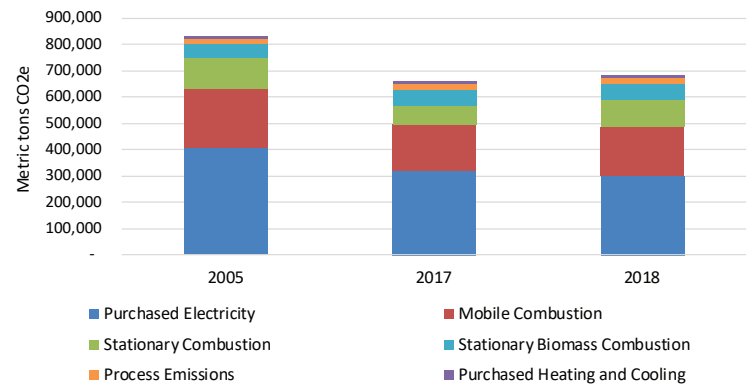
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Greenhouse Gas Significant Indicators

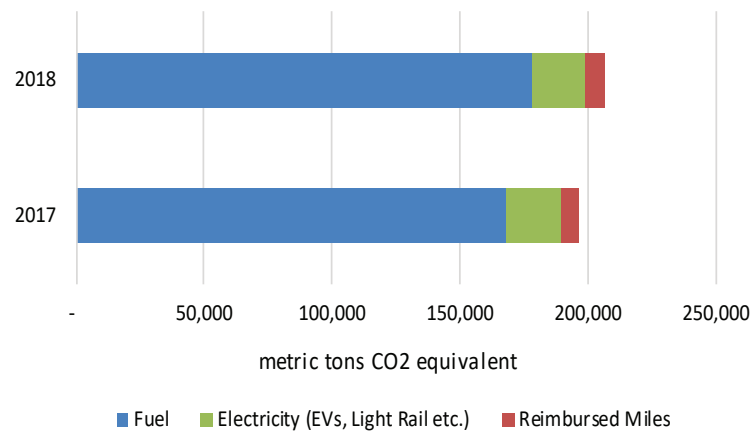
Built Environment Emissions



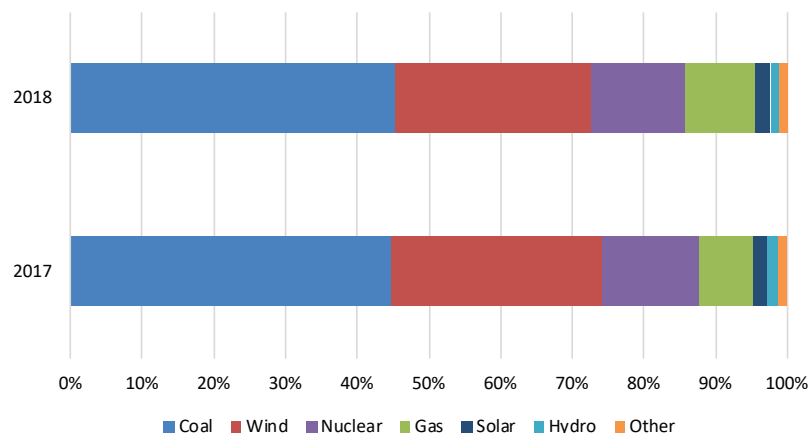
Enterprise Emissions



Transportation Emissions

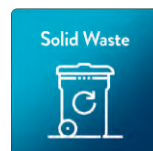
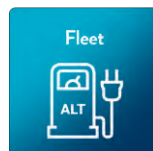
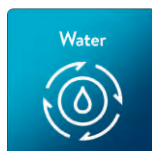


Enterprise Electricity Fuel Mix



Agency Score Cards

Percent Progress towards Goals



	Energy	Water	Fleet	Solid Waste	Greenhouse Gas
Admin	72	-41	-34	100	100
Agriculture	-36	-67	26	78	17
Commerce	-10	-93	-2	39	100
Corrections	4	10	-6	64	45
Economic Development	-6	-24	29	10	100
Education	-12	-100	18	22	100
Health	-41	-36	9	90	46
Higher Education	-33	100	-100	22	100
Minnesota Housing	-7	100	14	54	100
Human Rights	-28	57		100	100
Human Services	-40	-100	14	100	100
Iron Range Resources	-7	81	52	8	9
Labor and Industry	22	95	25	81	91

Fleet goal: 30% reduction of fossil fuel use by vehicles and equipment by 2027.

Energy goal: 30% reduction in consumption of energy per square foot by 2027.

Water goal: 15% reduction in water use by 2025.

Solid waste goal: 75% of solid waste is recycled or composted by 2030.

Procurement: 25% of total spending on priority contracts is sustainably purchased by 2025.

Greenhouse gas: 30% reduction of greenhouse gas emissions by 2025.

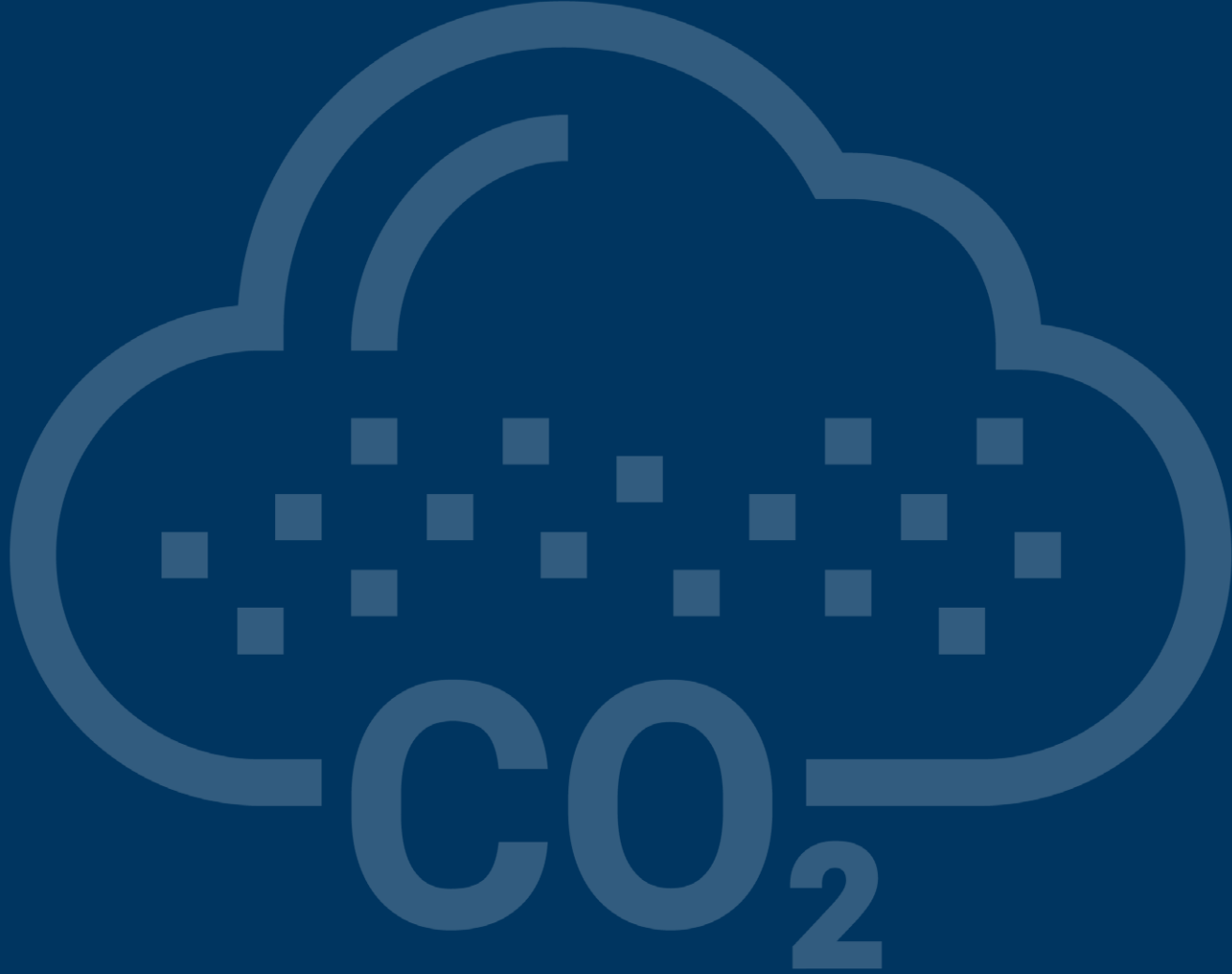


	Energy	Water	Fleet	Solid Waste	Greenhouse Gas
Management & Budget	-33	-16		98	100
Mediation Services	0	100	-9	0	100
Met Council	46	-30	6	61	47
Military Affairs	58	58	-100	27	100
Natural Resources	42	100	80	25	100
Pollution Control	-15	-20	28	88	100
Public Safety	-24	99	-8	56	-41
Revenue	-40	-9	-15	100	100
Technology	-22	-76	-5	95	58
Transportation	28	17	-73	21	1
Veterans Affairs	53	-100	0	12	-40
ENTERPRISE	35	20	-5	49	61

LESS THAN 49% = **RED**

50% - 99% = **AMBER**

100% = **GREEN**

The background of the lower half of the page is a solid light green color. Faint, large-scale line art graphics are visible in the background, including a recycling bin on the left and a cardboard box on the right. The box has two upward-pointing arrows on its side.

mn DEPARTMENT OF
ADMINISTRATION
ENTERPRISE SUSTAINABILITY

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