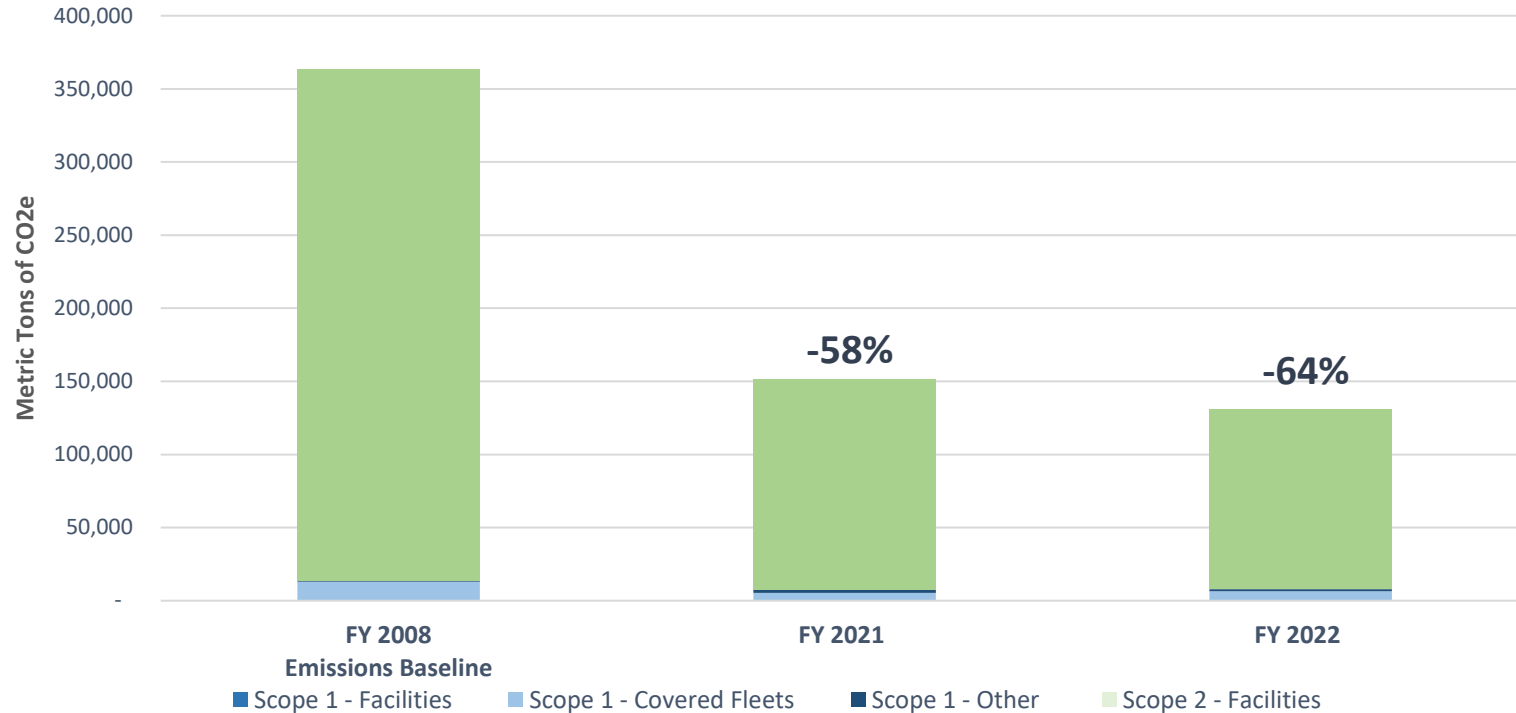


Tennessee Valley Authority
FY 2022 Sustainability Scorecard



Net-Zero Emissions Operations by 2050,
Including a 65% reduction by 2030

GHG Emissions From Standard Operations
 Reduction in annual scope 1 and 2 emissions (MT CO2e) from a 2008 baseline



For abbreviations and definitions— See OMB Scorecard Glossary

Agency Progress Indicator

Agency progress as compared to all other Scorecard Agencies overall progress in FY22 towards the 2030 GHG reduction goal.

Top 25%

Annual Progress from Prior Year

+454

Scope 1 Emissions

-20,926

Scope 2 Emissions

+6%

-15%

FY 2022 Standard Operations Emissions

Scope and Category	MTCO2e	% of Total
Scope 1 - Covered Fleets	6,407	5%
Scope 1 - Other	1,412	1%
Scope 1 - Facilities	62	0%
Scope 2 - Facilities	122,840	94%

Total

130,721

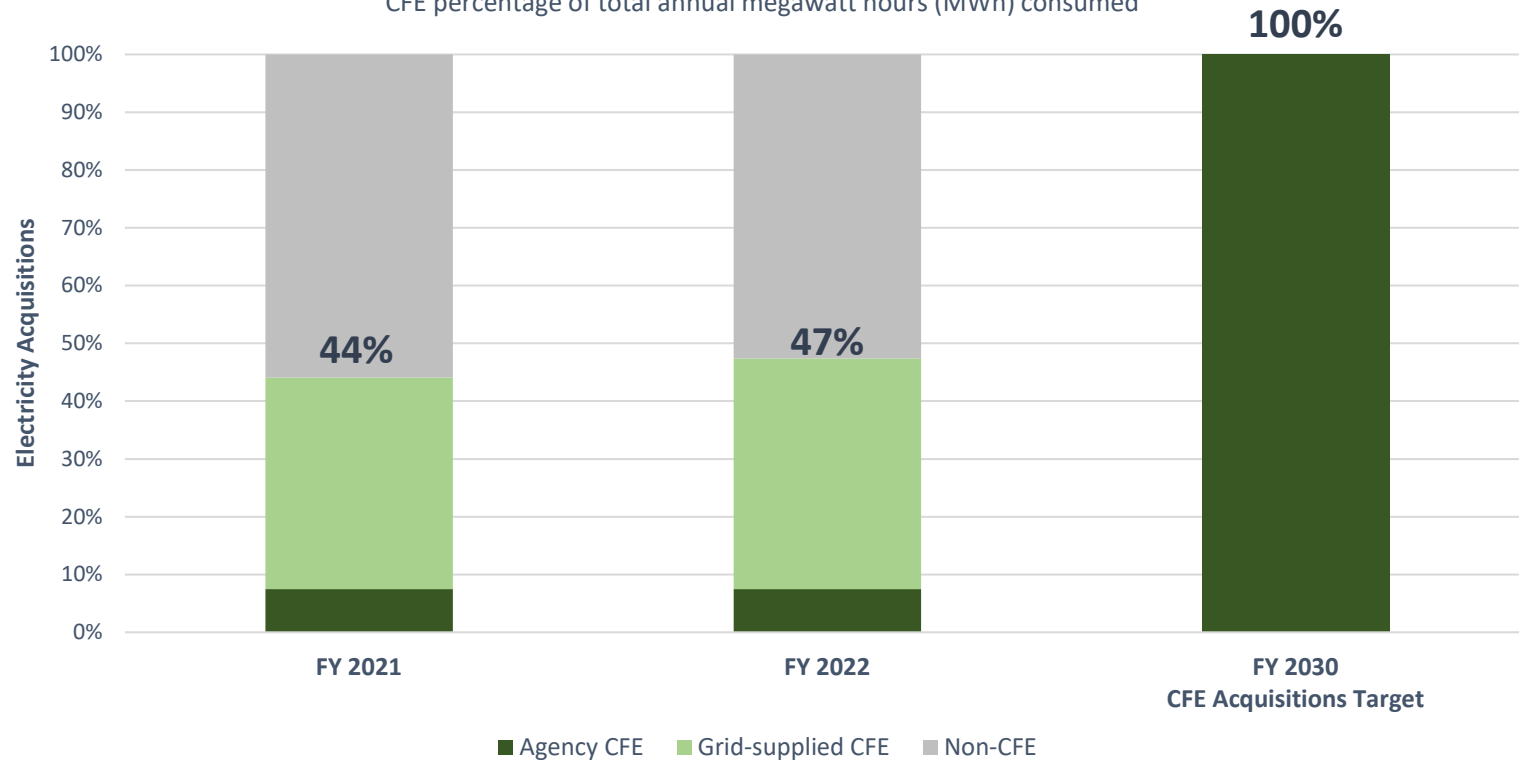
Tennessee Valley Authority

FY 2022 Sustainability Scorecard



100% Carbon Pollution-Free Electricity on a Net Annual Basis by 2030

Carbon Pollution-Free Electricity (CFE) Acquisitions
CFE percentage of total annual megawatt hours (MWh) consumed



Agency Progress Indicator

Agency progress as compared to all other Scorecard Agencies overall progress in FY22 towards the 2030 CFE acquisition goal.

Top 25%

Annual Progress from Prior Year

+8,385

MWh of CFE Acquisition

+5%

FY 2022 Agency Electricity Profile

Category	MWh	% of Total
Agency CFE	27,389	8%
Grid-Supplied CFE	145,776	40%
Non-CFE	192,017	53%

Total

365,182

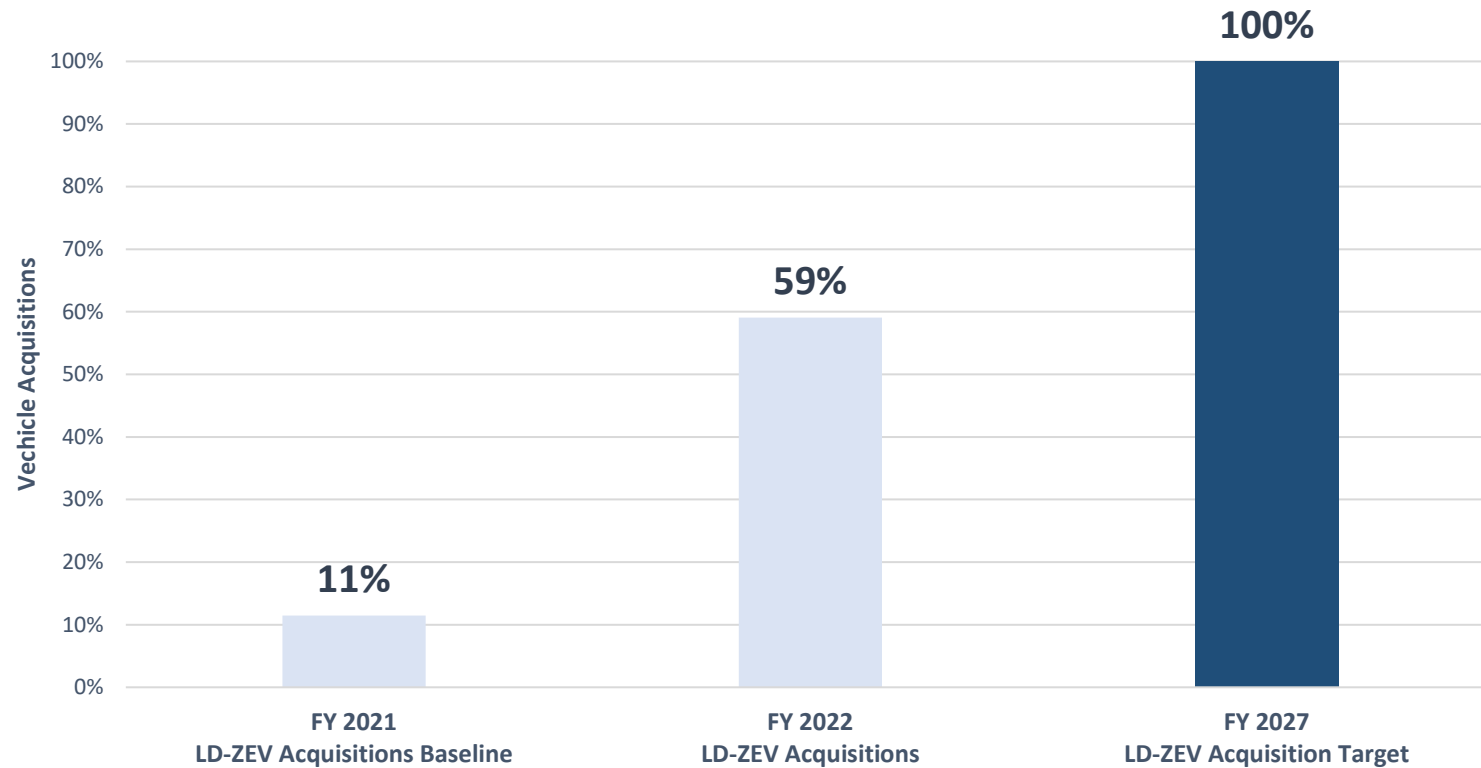
For abbreviations and definitions— See OMB Scorecard Glossary

Tennessee Valley Authority
FY 2022 Sustainability Scorecard



100% Zero-Emission Vehicle Acquisitions by 2035

Zero Emission Vehicles Acquisitions
 ZEVs as percentage of annual light-duty vehicle (LDV) orders



For abbreviations and definitions— See OMB Scorecard Glossary

Agency Progress Indicator

Agency progress as compared to all other Scorecard Agencies overall progress in FY22 towards the 2027 ZEV acquisition goal.

Top 25%

Annual Progress from Prior Year

+73
 LD-ZEV Acquisitions

+25
 Charging Ports

+487%

+24%

Covered Fleet Inventory

Category	FY 21	FY 22
Light Duty ZEV	21	58
Light Duty ICE	1,496	1,486
Total	1,517	1,544

Charging Port Inventory

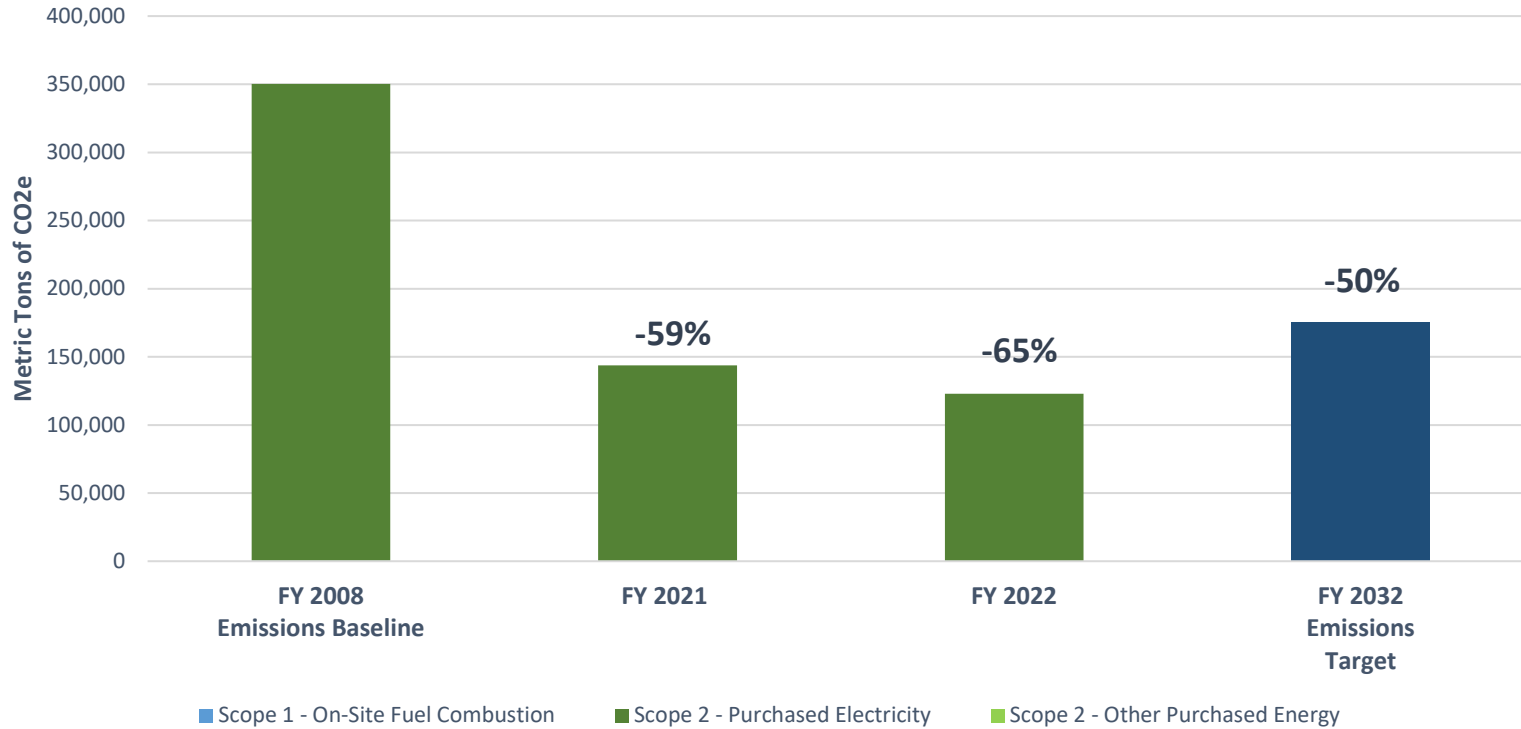
Category	FY 21	FY 22
AC Level 1	18	23
AC Level 2	88	108
DC Fast Charging	0	0
Total	106	131

Tennessee Valley Authority
FY 2022 Sustainability Scorecard



**Net-Zero Buildings by 2045,
including a 50% reduction by 2032**

GHG Emissions from Standard Operations in Facilities
Reduction in annual scope 1 and 2 emissions (MT CO2e) from a FY 2008 Baseline



Agency Progress Indicator

Agency progress as compared to all other Scorecard Agencies overall progress in FY22 towards the 2032 GHG reduction goal.

Top 25%

Annual Progress from Prior Year

-0

Scope 1 Emissions

-20,926

Scope 2 Emissions

-1%

-15%

FY 2022 Buildings Standard Emissions

GHG	MTCO2e	% of Total
Scope 1 - On-Site Fuel Combustion	62	0%
Scope 2 - Purchased Electricity	122,840	100%
Scope 2 - Other Purchased Energy	0	0%

Total

122,902

For abbreviations and definitions— See OMB Scorecard Glossary

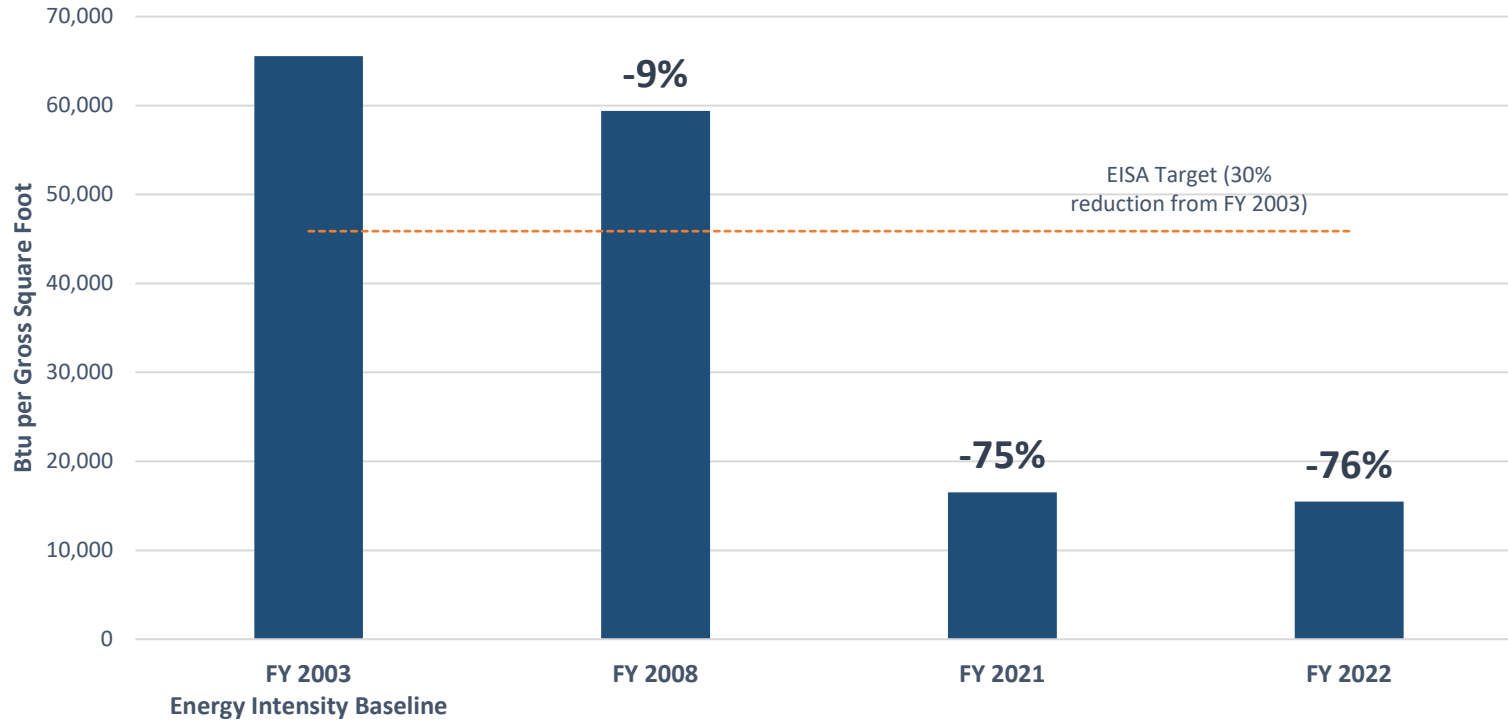
Tennessee Valley Authority
FY 2022 Sustainability Scorecard



Federal Facility Energy Use

Facility Energy Intensity

Reduction in facility energy intensity (Btu per GSF) from a 2003 baseline



For abbreviations and definitions— See OMB Scorecard Glossary

Agency Progress Indicator

Agency status meeting or exceeding the statutory goal of a 30% reduction in Btu/GSF from a 2003 Baseline



Not Met

Met

Exceeded

Annual Progress from Prior Year

-1,048

Btu per GSF

-6.3%

Energy Intensity Details

End Use	Site-Delivered BBtu	% of Total
Electricity	380	324%
On-Site Fuel Combustion	1	1%
Purchased Thermal	1	1%
On-Site Renewables and Other Adjustments	-265	-226%
End-Use Sector Total	117	
Gross Square Feet (Thou.)		7,575

Energy Intensity

15,476

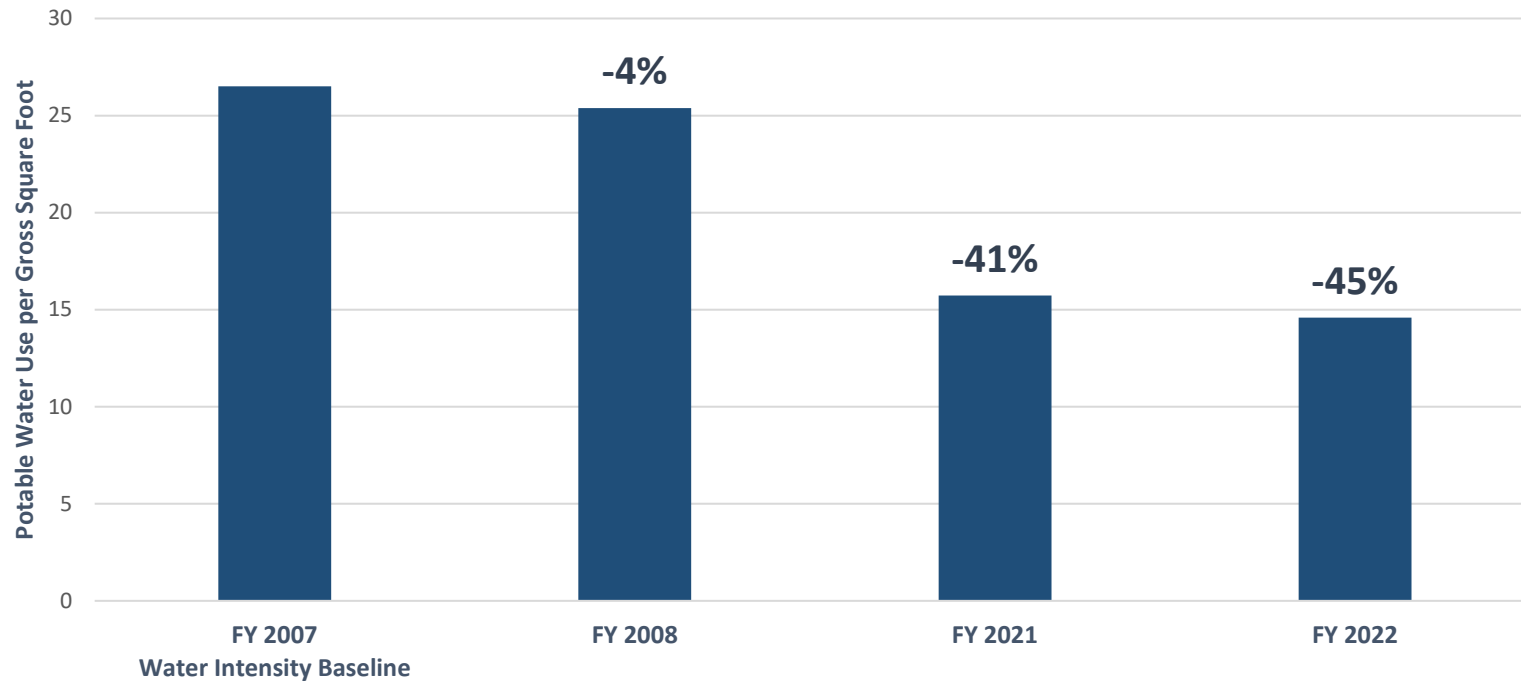
Tennessee Valley Authority
FY 2022 Sustainability Scorecard



Federal Facility Water Use

Facility Water Intensity

Reduction in facility water intensity (Gallons per GSF from a 2007 baseline)



Annual Progress from Prior Year

-1

Gallons per GSF Change

-7.3%

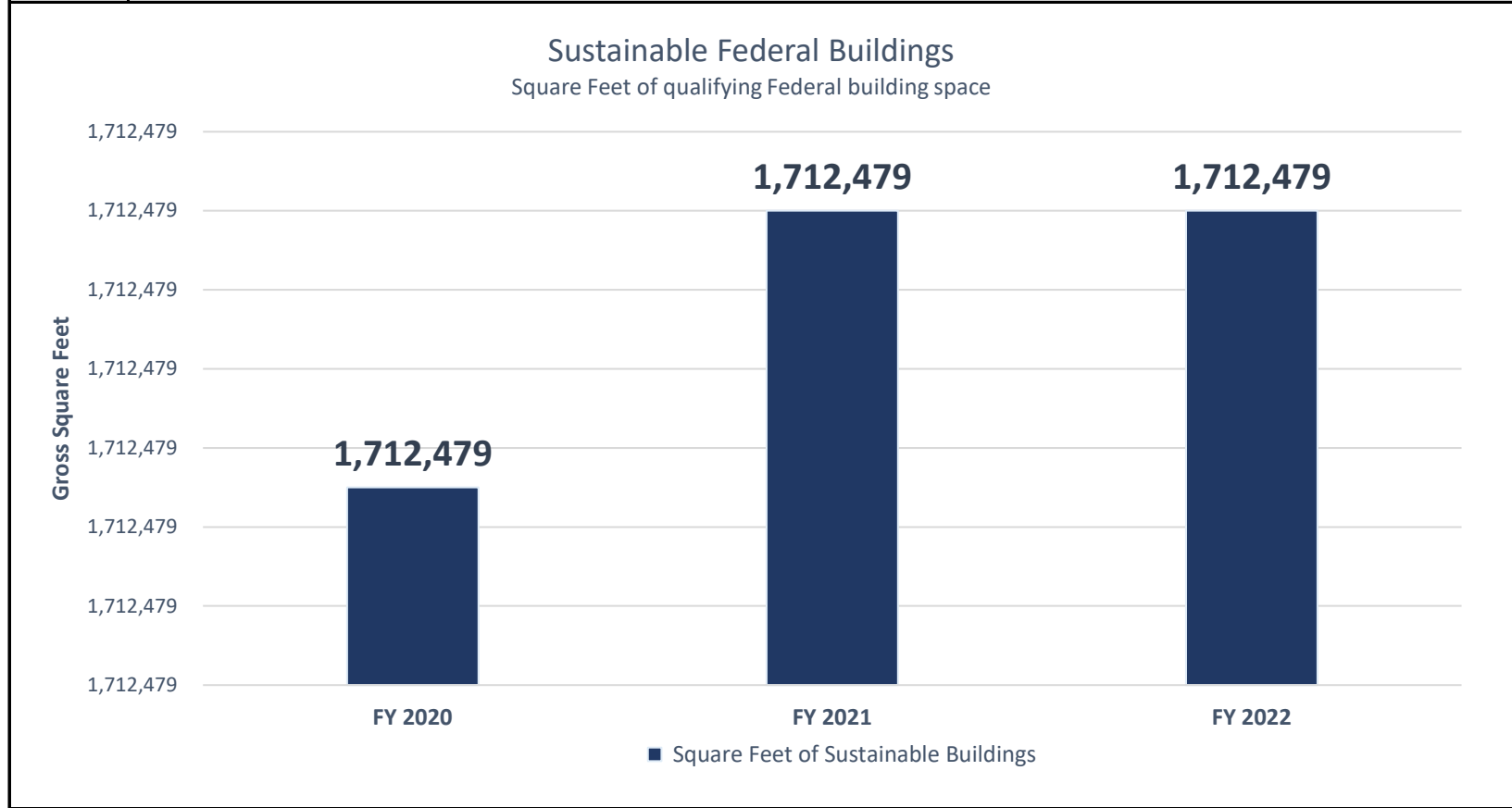
Water Intensity Details

	<u>FY22</u>
Gallons (Million)	340
GSF (Thou.)	23,323
Water Intensity	14.6

For abbreviations and definitions— See OMB Scorecard Glossary

Tennessee Valley Authority
FY 2022 Sustainability Scorecard

 **High Performance Sustainable Federal Buildings**



Annual Progress from Prior Year		
+0		
Sustainable Federal Buildings	+0	Sq.ft of Sustainable Federal Buildings
+0%		
Agency Sustainable Building Details		
	<u>Number of Buildings</u>	<u>Sq.ft. of Buildings</u>
■ Assessed as Sustainable	28	1,712,479
All Applicable Buildings	78	5,757,291
Portfolio Sustainability	36%	30%

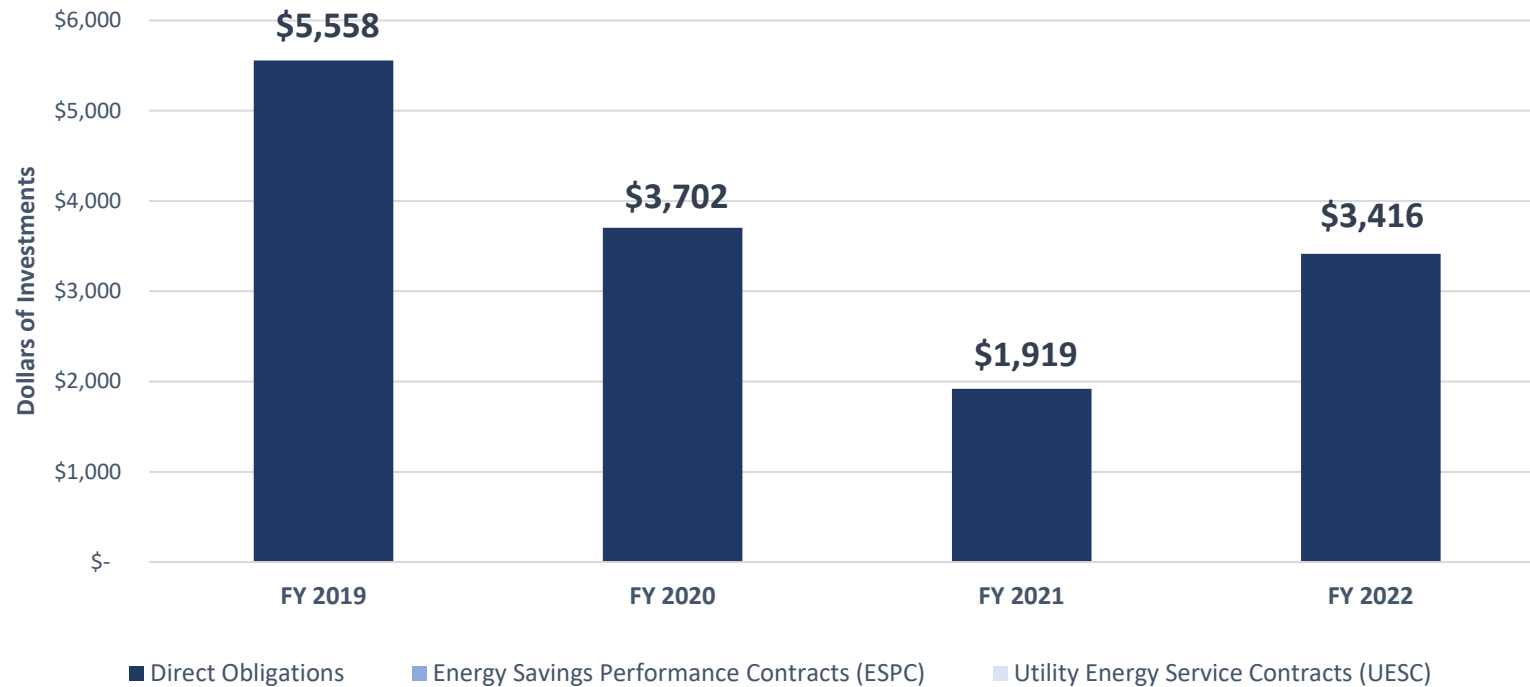
For abbreviations and definitions— See OMB Scorecard Glossary

Tennessee Valley Authority
FY 2022 Sustainability Scorecard



Federal Facility Efficiency Investments

Investment in Energy Efficiency and Renewable Energy
 (in Adjusted Constant FY 2022 Dollars (Thou.))



Agency Progress Indicator

Agency progress on completion of facility evaluations as compared to all other Scorecard Agencies in FY22

Top 25%

Annual Progress

Percent of total investments completed by ESPC or UESCs over the last 4 years **0%**

Percent of covered facilities evaluated for efficiency opportunities **100%**

Agency Facility Investments in ECMs

Type of Investment	Thou. \$	% of investment
Direct Obligations	\$3,416	100%
ESPC	\$0	0%
UESC	\$0	0%

Total (M\$) \$3.4

For abbreviations and definitions— See OMB Scorecard Glossary

OMB Scorecard Glossary

Abbreviations

Btu = British thermal units	EVSE = electric vehicle supply equipment (e.g. Charging Ports)	LDV = Light Duty Vehicle
CFE = Carbon Pollution Free Electricity	GHG = greenhouse gas	MTCO_{2e} = Metric Tons of Carbon Dioxide Equivalent
ECM = efficiency/conservation measure	GSF = Gross square foot (or feet)	N/A = data not available
ESPC = Energy Savings Performance Contracts	ICE = Internal Combustion Engine	UESC = Utility Energy Service Contracts
	KWh = Kilowatt hours	ZEV = Zero Emissions Vehicles

Progress Indicators

Top 25%

Upper Quartile or 75th percentile relative to other Scorecard Agencies

Terminology

TOPIC

DATA SOURCE and TERMINOLOGY DEFINITIONS

NET-ZERO EMISSIONS OPERATIONS

Source: Agency greenhouse gas emission are calculated from the agency submitted Annual Energy Management Data Reports. Details and background data can be found on FEMP's [Comprehensive Annual Energy Data and Sustainability Performance](#) data site.

- **Standard Operations:** Any emissions from operations not designated, under section 602 of E.O. 14057, as exempted and reported as non-standard operations. Non-Standard Operations are vehicles, vessels, aircraft and other equipment used by Federal Government agencies in combat support, combat service support, tactical or relief operations, training for such operations, law enforcement, emergency response, or spaceflight (including associated ground-support equipment). Non-Standard operations also includes generation of electric power produced and sold commercially to other parties.
- **Scope 1 (Covered Fleets):** Emissions from standard operations from the agency's fleet of passenger fleet vehicles.
- **Scope 1 (Other):** Emissions from fluorinated gases and other fugitive emissions, on-site wastewater treatment, on-site landfills and municipal solid waste facilities, manufacturing and industrial processes, and from non-passenger fleet vehicles, aircraft, ships, and mobility equipment reported as standard operations.
- **Scope 1 (Facilities):** Emission from standard operations of on-site fuel consumption at federal facilities, including natural gas, fuel oil, LPG/propane, coal and any other fossil fuel.
- **Scope 2 (Facilities):** Emissions from standard operations of any purchased electricity, purchased biomass energy, purchased steam and hot water, purchased chilled water, purchased energy from combined heat/power plants, and renewable energy purchases.

See [E.O. 14057 Implementing Instructions for Federal Agencies](#) for more details on definitions.

CARBON POLLUTION-FREE ELECTRICITY

Source: Agency electric energy consumption is submitted to DOE-FEMP through Annual Energy Management Data Report. Details and background data can be found on FEMP's [Comprehensive Annual Energy Data and Sustainability Performance](#) data site.

- **Agency CFE:** Includes electricity generated at a Federal facility, electricity purchased from a qualifying CFE generation source with the associated energy attribute certificates (EACs) and Purchased or unbundled EAC.
- **Grid-supplied CFE:** CFE delivered as part of default electricity service or the electricity grid mix from a utility or electric service provider.
- **Non-CFE:** Electricity from non-carbon pollution free electricity sources.

See [E.O. 14057 Implementing Instructions for Federal Agencies](#) for more details on definitions.

OMB Scorecard Glossary

Terminology and Progress Indicators

TOPIC

DATA SOURCE and TERMINOLOGY DEFINITIONS

ZERO-EMISSION VEHICLE ACQUISITIONS

Source: Agency fleet inventory and EVSE installation data was reported in the [Federal Automotive Statistical Tool \(FAST\)](#). Acquisition (vehicle order) data was provided by GSA.

- **Light Duty:** A vehicle weighing 8,500 pounds gross vehicle weight rating or less, certified for use on all public roads and highways. (Sec. VII of M-22-06)
- **Vehicle Acquisition:** The placement of an order for a vehicle, recognizing fulfillment and timing of delivery is not within an agency's control.
- **Vehicle Inventory:** Vehicles in agency operation as of September 30 of the fiscal year as reported in FAST.
- **Charging Port:** Electric vehicle supply equipment connector in agency operation as of September 30 of the fiscal year as reported in FAST. A charging station may have multiple ports.

See [E.O. 14057 Implementing Instructions for Federal Agencies](#) for more details on definitions.

NET-ZERO EMISSIONS BUILDINGS

Source: Agency facility greenhouse gas emission are calculated from the agency submitted Annual Energy Management Data Reports. Details and background data can be found on FEMP's [Comprehensive Annual Energy Data and Sustainability Performance](#) data site.

- **Scope 2 - Other Purchased Energy:** Emissions from standard operations from any purchased biomass energy, purchased steam and hot water, purchased chilled water, purchased energy from combined heat/power plants, and renewable energy purchases.

See [E.O. 14057 Implementing Instructions for Federal Agencies](#) for more details on definitions.

FACILITY ENERGY EFFICIENCY

Source: Agency facility energy use is submitted to DOE-FEMP through Annual Energy and Water Use Reports. Details and background data can be found on FEMP's [Comprehensive Annual Energy Data and Sustainability Performance](#) data site.

- **Purchased Thermal Energy:** Include energy from purchased steam and hot water and purchased chilled water.
- **Purchased Renewables and Adjustments:** Includes renewable energy purchases but not on-site RE, subtracts source-energy-saving project credit, weather normalization credit, and project savings in Excluded buildings credit).

FACILITY WATER EFFICIENCY

Source: Agency facility water use is submitted to DOE-FEMP through Annual Energy Data Reports. Details and background data can be found on FEMP's [Comprehensive Annual Energy Data and Sustainability Performance](#) data site.

HIGH PERFORMANCE SUSTAINABLE BUILDINGS

[Source: Agency sustainable building inventory is reported through GSA's Federal Real Property Profile Management System. Details and background data can be found in the Federal Real Property Public Data Set \(FRPP\).](#)

- **Assessed as Sustainable:** Any building which meets the criteria as laid out in the CEQ [Guiding Principles for Sustainable Federal Buildings and Associated Instructions](#).
- **Applicable Buildings:** All sustainable buildings and all federal buildings over 25,000 sq.ft. which met the criteria as detailed in Section 32 of the GSA 2022 [Guidance for Real Property Inventory Reporting](#).

FACILITY EFFICIENCY MEASURES/ INVESTMENT

Source: Agency facility efficiency investments are submitted to DOE-FEMP through Annual Energy Data Reports. Details and background data can be found on FEMP's [Comprehensive Annual Energy Data and Sustainability Performance](#) data site.