

# 2020 Green Fleet Annual Report

# 1. Introduction

## Background

Local Law #9 of 2015, establishing a Sustainable Green Fleet Policy, was adopted by the Ulster County Legislature in August of 2015 and approved by the County Executive in September of 2015. The Green Fleet Law recognizes that, while vital to the operation and function of County Government, fleet operations represent a significant environmental and economic cost to Ulster County. The law outlines ways to reduce these costs and impacts and includes requirements to inventory the fleet, monitor fuel use, optimize use of existing vehicles, and purchase green vehicles to meet a defined green fleet goal.

#### **Reporting Requirements**

The Green Fleet Law requires an annual report to be filed with the County Executive and the designated Ulster County Legislative Standing Committee(s) on or before March 1<sup>st</sup>.

The report shall include but not be limited to:

- Information addressing the intent and purpose of the law (Section 1), the fleet inventory (Section 3), and the Green Fleet Policy implementation strategies (Section 5);
- Documentation of fuel use and emissions associated with the fleet;
- Assessment of goals as outlined in policy and whether they have been attained; and
- Recommendations regarding actions to be taken to meet the goals as well as recommendations as to specific changes or modifications to the policy.

#### Methodology

The monitoring and implementation of the Green Fleet Law is a collaborative effort between various Executive Departments, including the Department of the Environment and the Department of Public Works (Fleet Manager) as well as UCAT, the UC Purchasing Department and others.

The Green Fleet Policy requires extensive monitoring and detailed analysis of fleet composition and fuel consumption. The information in this report was compiled from several data sources to determine the average efficiency of the Ulster County fleet by individual vehicle, vehicle class and Ulster County department. The data contained within is maintained by the Department of the Environment for ongoing trend analysis.

As procedures continue to be refined to track and report fleet activity, the report's accuracy and ability to describe operations at any one point in time will continue to improve. This report is intended to provide an overview of fleet size and performance over the course of time as fleet function and size changes. Such changes may occur due to reduction, transfer or merger of departmental functions, such as the UCAT expansion of service in the City of Kingston that occurred in 2019.

#### **Green Vehicle Definitions**

Per the Local Law, *Green Vehicle* refers to any vehicle that employs technology that reduces fuel consumption or emissions and shall include, but is not limited to:

- Hybrid vehicles (HEV): HEVs have electric components but use a combustible fuel source (such as gasoline) to power the vehicle. The battery can only be recharged by operating the vehicle (i.e. no plug).
- Plug-in hybrid vehicles (PHEV): PHEVs have a larger battery that will enable a portion of driving range available as "all-electric" mode. The batteries can be recharged by plugging the vehicle into an electric power source.
- Battery electric vehicles (BEV): BEVs are powered solely by electricity stored in batteries and have no internal combustion engine in the vehicle.

# 2. Fleet Size and Composition

#### Number of Vehicles

As of December 31<sup>st</sup>, 2020, the County's inventory included 467 vehicles in 28 departments/divisions. This number includes all vehicles in Ulster County's operational vehicle fleet and transit fleet.

# **New Vehicles**

The UC DPW Fleet Manager continues to work with departments to review the intended use and need for each vehicle request selecting the most efficient vehicle practicable for the application, ensuring "right-sizing" of the fleet as older vehicles are replaced. Using a "right-sizing" approach, the County can improve the average efficiency of the fleet, even if the size of the fleet increases due to increased operational requirements. Each year, additional types and models of BEVs and PHEVs are brought to market. As these vehicles become available, they will be evaluated for deployment in the fleet.

The new vehicles added to the fleet in 2020 consisted of larger vehicles for which there is not a suitable green vehicle per the Local Law definition. The County added one new conventional passenger vehicle in 2020 to support Sheriff's department operations. Other planned purchases for green passenger vehicles were put on hold in 2020 due to budgetary reductions.

# **Retired/Auctioned Vehicles**

A total of nineteen (19) vehicles were retired in 2020. Eleven (11) of these were auctioned. The remainder are awaiting disposition. These vehicles are included in the fleet inventory. A detailed list of auctioned vehicles is included as Appendix C.

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Туре	Auctioned in 2020	New to Service in 2020
Passenger	5	1
Vehicle		(1) Passenger sedan - Sheriff
Light Duty Truck	0	0
Medium Duty Vehicle	5	12 (3) Chevrolet 2500 (3) Chevrolet 2500HD (2) Chevrolet Tahoe (1) Dodge Durango (2) Ford E-450 (1) Ram 1500
Heavy Duty Vehicle	1	<ul> <li>14</li> <li>(2) Chevrolet 4500</li> <li>(1) Ford F-550</li> <li>(3) Gillig G27B102N4</li> <li>(4) International CV515</li> <li>(3) International HV507 SFA 4x4</li> <li>(1) Spartan Fire Truck</li> </ul>
Total	11	28

#### TABLE 1: VEHICLES AUCTIONED AND NEW TO SERVICE (2020)

#### Green Vehicle Integration

The Green Fleet Policy mandates that 5% of the fleet will be Green vehicles by 2020. As of December 31<sup>st</sup>, 2020, the County fleet included 38 Green vehicles, per the policy definition, including: (5) hybrid transit buses, (12) hybrid passenger vehicles, (10) plug-In hybrid (PHEV) passenger vehicles, (4) plug-in hybrid light duty trucks, (6) plug-in hybrid medium duty vans and (1) battery electric (BEV) passenger vehicle.

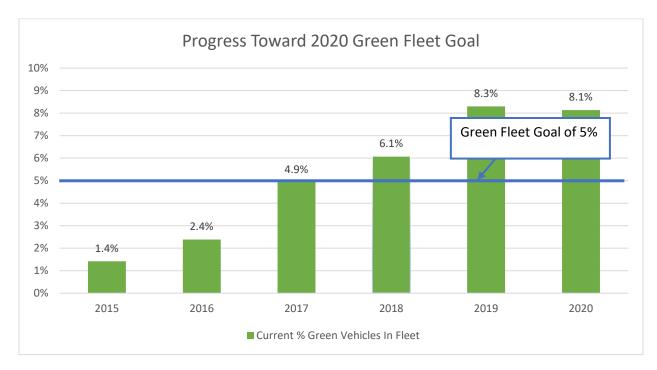


FIGURE 1: PROGRESS AGAINST 2020 GREEN FLEET GOAL

# 3. Fuel Consumption and Cost

Fleet fuel is purchased and tracked using the following systems:

- WexOnline: WexOnline<sup>®</sup> is a credit card procurement system that allows vehicle drivers to purchase fuel at commercial service stations. This system tracks transaction data including vehicle, mileage, user and department.
- **FuelMaster:** DPW maintains diesel fuel tanks at the Quarry and various Highway Substations for use with Heavy Duty vehicles and equipment. These tanks are filled by the County's diesel fuel vendor or through pickup at a local fuel terminal with a County-owned fuel truck. The Fuelmaster system provides data on fuel dispensed at these tanks.
- UCAT Gasoline and Diesel Tanks: UCAT maintains diesel and gasoline tanks on site for operation of the UCAT bus fleet. UCAT vehicles fuel from these tanks to the maximum extent possible, though occasionally UCAT vehicles use the WexOnline<sup>®</sup> system for fueling. UCAT's fueling management system provides data on fuel dispensed from these tanks.
- SUNY New Paltz Fuel: Ulster County used approximately 8,000 gallons of diesel fuel from pumps at SUNY New Paltz for the New Paltz bus loop. This usage is reported quarterly to the County and is included in the fuel usage totals in this report.

TABLE 2: TOTAL FUEL USAGE BY TYPE

Fuel Type	2015	2016	2017	2018	2019	2020
Diesel (gallons)	286,963	260,584	269,670	276,476	301,466	218,628
Biodiesel (gallons)	-	3,986	3,226	3,521	2,610	-
Gasoline (gallons)	220,950	243,530	226,218	239,060	249,513	228,165
Ethanol (gallons)	24,550	27,059	25,135	26,562	27,724	24,933
Electricity (gallons equivalent)	-	66	172	239	608	473
Total	532,463	535,225	524,421	545,858	581,921	472,198

#### Notes:

- 1. Fuel usage is the total fuel dispensed to vehicles in the calendar year reported. This accounting methodology was updated in 2019. Totals prior to 2019 are for fuel purchased, not necessarily fuel used.
- 2. UCAT began using biodiesel in 2015 and began reporting usage in 2016. In 2020, the UCAT fleet did not use biodiesel blend fuel due to a large reduction in usage of diesel fuel in the spring and summer months and the need to ensure tanks were filled with conventional diesel fuel in the fall and winter months (to reduce the possibility of fuel gelling).
- 3. Gasoline purchased at local filling stations is assumed to be (on average) an E10 blend of 90% conventional fossil-derived gasoline and 10% renewable ethanol. The Gasoline delivered to UCAT tanks is an E10 blend of 90% conventional gasoline and 10% ethanol.
- 4. Ulster County put its first electric vehicles into service in 2016.
- 5. Gasoline equivalent was calculated using the EPA conversion estimate of 33.7 kWh per gallon of gasoline. Total electricity use in 2020 for fleet operations was 15,952 kWh.
- 6. Non-Road fuel usage consists of fuel used by:

a) DPW Buildings & Grounds division for grounds maintenance and other tasks using small engine equipment. This fuel is purchased through the WexOnline system and transported in gas cans or the equipment.b) Sheriff's Department for boats. This fuel is purchased from local marinas.

Fleet	Fuel Type	Purchases (gallons)	Cost (\$)
Vehicle	E10 Gasoline	217,063.7	\$367,440.10
	Diesel	119,345.7	\$196,074.40
	Electricity	473.3 (gallons equivalent)	\$1,690.90
Transit	E10 Gasoline	30,609.0	\$50,766.80
	Diesel	86,561.9	\$139,315.50
	B5 Biodiesel Blend	0.0	\$0.00
Non-Road	E10 Gasoline	5,662.4	\$17,843.40
Total	All Fuels	459,716.0	\$773,131.04

#### TABLE 3: FLEET FUEL PURCHASED (2020)

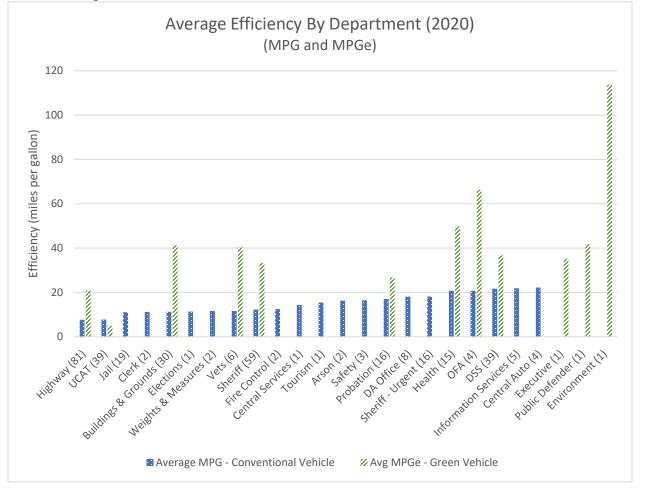
#### Notes:

1. Fuel purchased is fuel delivered to an Ulster County-owned tank or purchased through the Wex fueling system. This number differs from fuel usage above due to the tank levels at the end of the year and fuel acquired from other sources.

2. The average blended electricity cost for UC Buildings with EV charging stations installed is \$0.106/kWh. (2019 electricity cost data, UC Department of the Environment)

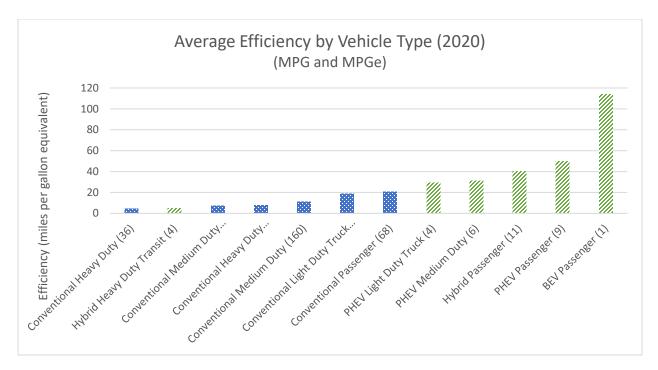
# 4. Fleet Efficiency

Fuel efficiency was calculated for all fleet vehicles with accurate annual mileage data. This analysis includes vehicles tracked in the WexOnline system, the FuelMaster system and UCAT vehicles, but does not include vehicles without accurate mileage data available. Annual miles traveled is calculated using either: 1) user reported odometer readings in the Wex fleet system, 2) odometer readings recorded in the FuelMaster system and 3) end of year mileage readings compiled by UCAT for transit vehicles. An annual efficiency value cannot be calculated



where odometer information is missing, incomplete or inaccurate. A summary of fleet fuel efficiency is contained in the following charts.

FIGURE 2: AVERAGE EFFICIENCY BY DEPARTMENT (2020)



#### FIGURE 3: AVERAGE EFFICIENCY BY VEHICLE CLASS (2020)

Notes:

- 1. The number listed in parentheses beside each department name indicates the number of vehicles with valid mileage data reported.
- 2. Plug-in electric vehicles in the fleet charge primarily using Ulster County's ChargePoint network. Usage totals have not been adjusted to account for out of network charging.

# 5. Greenhouse Gas Emissions

Ulster County offsets 100% of its emissions through the purchase of carbon credits and renewable energy credits (RECs), including all Scope 1 and 2 emissions associated with fleet operations. However, the practice of purchasing offsets to reduce greenhouse gas (GHG) emissions does not contribute toward the achievement of other Ulster County Green Fleet Policy goals such as increased efficiency, reduced costs and improved local air quality. To measure source emissions reductions over time, this report includes fleet emissions quantities (below) that do not include the application of carbon offsets or renewable energy credits.

Emissions Factors Disclosure:

Ulster County accounts for GHG emissions in accordance with the Local Government Operations Protocol<sup>1</sup> developed by Local Governments for Sustainability (ICLEI).

Ulster County uses emissions factors published by the EPA in the document *Emissions Factors for Greenhouse Gas Inventories*<sup>2</sup> (last modified 3/9/3018).

100-year global warming potential (GWP) multipliers were applied as published in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report.<sup>3</sup>

Ulster County does collect and maintain data on vehicle miles traveled (VMT) for vehicle fleet and transit fleet vehicles to the extent possible. However, to simplify the accounting process for mobile combustion, Methane (CH4) and Nitrous Oxide (N2O) emissions were estimated on a per-gallon basis as described in the New York

<sup>&</sup>lt;sup>1</sup> Local Governments for Sustainability (ICLEI), Local Government Operations Protocol Version 1.1, 2010

<sup>&</sup>lt;sup>2</sup> Available here: https://www.epa.gov/sites/production/files/2018-03/documents/emission-factors mar 2018 0.pdf

<sup>&</sup>lt;sup>3</sup> Available here: <u>https://www.ipcc.ch/publications and data/ar4/wg1/en/ch2s2-10-2.html</u>

Community and Regional GHG Inventory Guidance (Version 1.0, September 2015).<sup>4</sup> To do so, CO2 emissions factors were multiplied by 0.1% for CH4 and 1.8% for N2O to obtain an emission factors for these greenhouse gases.

Year	Total Scope 1 - Direct Combustion Emissions (metric tons CO2e)	Total Scope 2 Emissions (metric tons CO2e)
2015	5,076.5	N/A
2016	4,883.1	0.4
2017	4,761.2	1.0
2018	5,015.3	1.1
2019	5,372.1	2.8
2020	4,318.2	1.8

#### TABLE 4: FLEET GREENHOUSE GAS EMISSIONS, SCOPE 1 & 2

Emissions from purchased electricity are considered Scope 2 - Indirect Combustion emissions. However, as discussed above, these emissions are also offset 100% through the County's purchase of renewable energy credits.

In 2020, 96.7% of fleet emissions resulted from the combustion of fossil fuels, with the bulk of the remaining portion of emissions resulting from combustion of biomass-based, or biogenic, fuels. In accordance with the ICLEI protocol, this type of carbon is not included in Scope 1 emissions as the carbon concerned is of biogenic origin and would have been emitted to the atmosphere through the natural process of decay. In 2020, biogenic emissions from biofuel combustion totaled 143.4 metric tons of CO2e.

Per the EPA's carbon equivalencies calculator, Ulster County's 2020 fleet emissions quantity (without offsets) is equivalent to that released by burning 23.7 railcars worth of coal or 9,998 barrels of oil. Alternatively, this amount of carbon could be offset through the annual carbon sequestration of 5,639 acres of U.S. forest land. <sup>5</sup> However, as discussed, 100% of these emissions are offset through the purchase of carbon credits.

# 6. Electric Vehicle Implementation

#### Fleet Electric Vehicle Performance

For plug-in hybrids and battery electric vehicles, an efficiency value of MPGe (miles per gallon equivalent) can be calculated using both gasoline and electricity consumption data, using the EPA's assumption that 33.7 kWh is equivalent to 1 gallon of conventional gasoline<sup>6</sup>. The MPGe efficiency value is a standardized way to quantify the total amount of energy required to operate the vehicle and compare its efficiency to vehicles that use only conventional fuel.

In 2020, the green vehicles in the Ulster County vehicle fleet achieved an average efficiency of 29.9 MPGe over 204,786 miles traveled in 2020. In general, the PHEV and BEV passenger vehicles in the fleet attained higher efficiency performance than hybrid vehicles.

<sup>&</sup>lt;sup>4</sup> Available here: <u>https://www.dec.ny.gov/docs/administration\_pdf/ghgguide.pdf</u>

<sup>&</sup>lt;sup>5</sup> Calculator available here: <u>https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator</u>

<sup>&</sup>lt;sup>6</sup> More information here: <u>https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revisions-and-additions-motor-vehicle-fuel</u>

Vehicle Type	2020 Sample Size	Average Efficiency (MPGe)
Hybrid Passenger	11	40.5
Plug-In Hybrid (PHEV) Passenger	9	49.8
Plug-In Hybrid (PHEV) Light Duty Truck	4	29.2
Plug-In Hybrid (PHEV) Medium Duty	6	31.1
Hybrid Transit Bus	4	5.0
Battery-Electric (BEV) Passenger	1	113.8

 TABLE 5: AVERAGE EFFICIENCY OF GREEN FLEET VEHICLES (2020)

The chart below shows the relative proportions of gasoline and electricity usage for each green vehicle model in 2020:

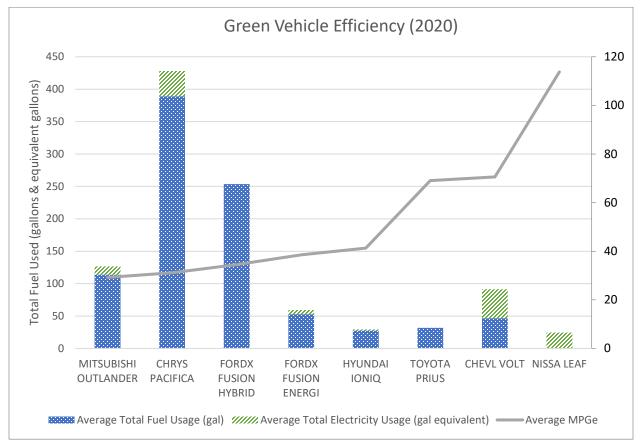


FIGURE 4: GREEN VEHICLE EFFICIENCY (2020)

#### Electric Vehicle Infrastructure

Ulster County added 2 new charging ports in 2020, for a total of 40 charging ports County-wide. The charging station network is used by three distinct groups:

- employees operating fleet vehicles
- employees and contract employees charging personal vehicles at work
- the public (Ulster County residents and visitors)

Ulster County fleet charging sessions accounted for 33% of energy dispensed from Ulster County stations in 2020. These totals are included in Appendix B. The cost of this energy is included in the electricity bills of the Ulster County properties where charging stations are located and is reported in the annual building benchmarking report, as it cannot be separated accurately from the cost of the electricity consumed to operate the building. Electricity costs contained in this report are estimated based on the average cost of electricity at properties where EV charging stations are installed.

The County's charging network provides access to workplace charging for 97% of the County's workforce. Currently, workplace charging does not represent a significant portion of usage, however, access to infrastructure is an important first step to ensure that Ulster County employees can consider the purchase of a green vehicle. When an employee purchases a green vehicle, the benefit of decreased emissions extends beyond the commute—a benefit to the entire community. Workplace charging not only reduces the County's carbon footprint but leads to wider community and regional benefits. Ulster County is invested in increasing the rate of employee electric vehicle adoption. Ulster County includes Scope 3 GHG emissions associated with employee commuting in its GHG inventory, and offsets these emissions through the purchase of carbon credits in accordance with the Net-Zero Government Operations policy.

The largest user group, both in number of individual charging sessions and energy dispensed, are public users. From 2016 through 2019, the Ulster County Regional Chamber of Commerce has sponsored the electricity cost of public charging sessions, allowing the energy to be offered to the public at no charge. Starting in 2020, Ulster County initiated a fee for charging model, charging no fee for the first two hours and \$0.50 per hour beyond 2 hours. The primary purpose of implementing this fee was to encourage users of the County charging equipment to remove their vehicles when charging is complete to allow for access by other users. This strategy has proven to be successful as the median time spent plugged-in by public users decreased from 2 hours, 50 minutes (2019) to 2 hours, 5 minutes (2020). This time is closer to the median time spent charging of 1 hour, 50 minutes.

In 2020, the Ulster County charging network hosted a total of 299 unique public drivers.

Location	# of Ports
Carr Building	2
Department of Public Works	2
Golden Hill Office Building / Health Department	8
Hall of Records	2
Kingston SUNY Extension	2
Probation Department	2
SUNY Ulster	2
Trudy Resnick Farber Building	2
Ulster County Courthouse	4
Ulster County Law Enforcement Center	4
Ulster County Office Building	2
Ulster County Office Complex /Dept. of Social Services	6
Ulster County Pool	2
Total	40

#### TABLE 6: ULSTER COUNTY ELECTRIC VEHICLE CHARGING NETWORK (AS OF 12/31/20)

# EV Charging Station Usage

The charts below show the rate of charging station utilization by year. To ensure accurate reporting of the number of charging sessions, any sessions drawing less than 0.1 kWh have been removed from the data.

Detailed information on the usage of the County's network of stations (by the public and the UC fleet) is included as Appendix B.

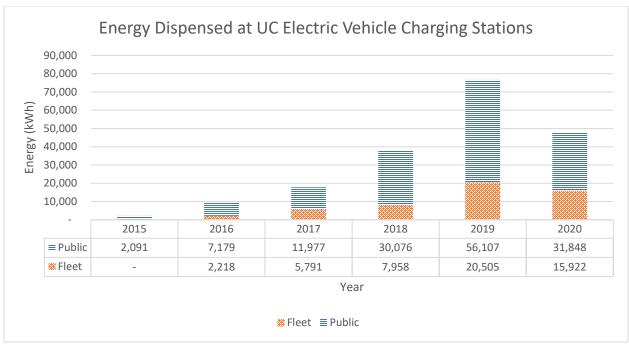


FIGURE 4: ENERGY DISPENSED AT UC ELECTRIC VEHICLE CHARGING STATIONS (2015-2020)

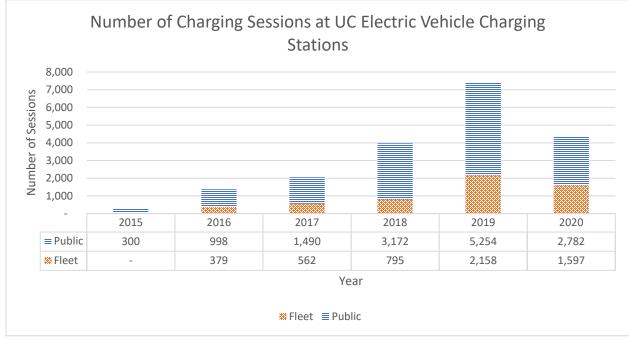


FIGURE 5: NUMBER OF SESSIONS AT UC CHARGING STATIONS (2015-2020)

# 7. Initiatives

## **Right-Sizing of the Fleet**

The Fleet Manager continues to actively manage the fleet for efficiency. Older, less-efficient vehicles are retired from the fleet as they reach the end of service life. Vehicles are then auctioned as documented in Appendix C. When acquiring new vehicles, the Fleet Manager works with departments to determine their needs and provides vehicles of an appropriate vehicle-class and type for the job, targeting optimum fuel efficiency for the application. As more and more models of electric vehicles, plug-in hybrids and hybrids become available, there will be additional options for a green vehicle to be used as a replacement to an existing vehicle.

#### **Education and Presentations**

Departments receiving electric vehicles receive training on the use of the cars, charging stations, and the goals of the Green Fleet Policy. This training also covers charging station policy, the availability of workplace charging and other ways to green the employee's daily commute (including reduced UCAT fares for County employees and ride sharing resources). This training program will continue with the addition of new vehicles to new departments in 2021.

In addition, the Countyhas presented details on its Green Fleet efforts to audiences across the state through NYS DEC and NYSERDA sponsored forums including webinars and conferences.

On September 14<sup>th</sup>, 2020, Ulster County hosted the 5th annual Ulster County National Drive Electric Week event in Kingston at the County courthouse parking lot. This event featured a wide variety of electric vehicles and provided an opportunity for the public to learn about Ulster County's Green Fleet initiatives.

#### **Bus Fleet Electrification**

The Ulster County Department of the Environment received funding from NYSERDA under the Public Transit Technology and Innovation Program (PON 3914) solicitation for a Transit Electrification Feasibility Study.

UCAT will use VW settlement money to help fund electrified fleet buses as well as funding the charging infrastructure at the UCAT garage for the buses. Ulster County is actively working with the New York Power Authority to develop this charging infrastructure to support the first electric transit buses in the fleet.

The initial electric bus capability will be three (3) 35' foot electric transit buses and three (3) 150KW DC fast chargers at the UCAT garage in Kingston. Implementation is expected in 2021.

#### **Technical Assistance**

The County continues to provide technical support to municipalities in Ulster County on electric vehicles and charging station initiatives. The Department of the Environment has worked with the following municipalities on efforts to install municipally sponsored charging stations: Woodstock, Gardiner, City of Kingston, Rosendale, Marbletown, Wawarsing, Village of New Paltz, and Town of New Paltz.

#### Strategic Deployment of Electric Vehicle Infrastructure

The expansion of Ulster County's municipal charging infrastructure will increasingly require long range planning and coordination. The Ulster County Department of Environment will continue to assess fleet charging needs to prioritize siting of future electric vehicle charging stations. As available locations and suitable electrical circuits become occupied with deployed stations, the Department of the Environment will continue to work with the Department of Public Works and the local utility to find the best locations for additional stations. Installation of additional Level 2 EV Charging stations was included in the 2021-2025 Capital Plan.

# 8. Appendices

# Appendix A: Fleet Usage Summary

# TABLE 7: FLEET USAGE SUMMARY (2020)

Department	Number of Vehicles	Number of Vehicles Reporting Valid Mileage	Total Distance Driven (miles)	Total Fuel Usage (gallons equivalent)	Total Fuel Cost	Average Energy Cost per Mile
Arson	3	2	9,721	871	1,405	\$0.14
Buildings & Grounds	33	30	117,841	11,165	20,294	\$0.17
Central Auto	14	4	20,439	771	1,395	\$0.07
Central Services	1	1	6,171	430	674	\$0.11
Clerk	2	2	4,368	361	584	\$0.13
DA Office	9	8	58,524	3,170	5,303	\$0.09
DSS	39	39	237,462	9,173	16,211	\$0.07
Elections	1	1	521	46	70	\$0.13
<b>Emergency Communication</b>	2	0	-	-	-	-
Environment	1	1	2,800	25	88	\$0.03
Executive	1	1	910	26	46	\$0.05
Fire Control	4	2	19,575	1,555	2,590	\$0.13
Health	15	15	81,311	3,231	5,705	\$0.07
Highway	147	81	717,726	100,442	167,173	\$0.23
Information Services	6	5	8,609	576	920	\$0.11
Jail	22	19	131,602	11,215	18,742	\$0.14
OFA	6	4	24,923	972	1,714	\$0.07
Planning	1	0	-	-	-	-
Probation	17	16	42,102	2,500	4,490	\$0.11
Public Defender	1	1	760	18	34	\$0.04
Safety	3	3	10,592	654	1,088	\$0.10
Sheriff	66	59	921,319	74,816	125,734	\$0.14
Sheriff - Urgent	18	16	145,532	8,474	14,372	\$0.10
Tourism	1	1	785	51	89	\$0.11
UCAT	46	39	619,575	94,707	155,898	\$0.25
Vets	6	6	61,724	4,444	7,164	\$0.12
Weights & Measures	2	2	18,570	1,589	2,489	\$0.13

# Appendix B: Ulster County Electric Vehicle Charging Stations

Detailed Usage Report - Pursuant to Resolution No. 332 of 2015

	Fleet	Public	Total
Total Energy Usage (kWh)*	15,922	31,848	47,770
Total Energy Cost to County**	\$1,688	\$3,376	\$5,064
Fee for Charging Revenue	-	\$2,016	\$2,016
Number of Charging Sessions	1,597	2,782	4,379
Average Energy Dispensed per Session (kWh)	10.0	11.4	-
Average Electricity Cost per Session	\$1.06	\$1.21	-
Greenhouse Gas Avoided (kg CO2e)***	6,687	13,376	20,063
Gallons of Gas Saved***	1,998	3,996	5,994
Median Time Charging	2:15	1:50	2:07
Number of Unique Users	21	299	320

TABLE 8: ULSTER COUNTY CHARGING STATION USAGE (2020)

\*Sessions drawing less than 0.1 kWh of electricity have been removed

\*\*Based on average blended cost of electricity for previous year - \$0.106/kWh

\*\*\*Calculated using conversions provided by ChargePoint, Inc.

Unique User Zip Codes (total 129): Accord NY, Albany NY, Alexandria VA, Arkville NY, Ballston Lake NY, Ballston Spa NY, Beacon NY, Bearsville NY, Bellerose NY, Big Indian NY, Boiceville NY, Brooklyn NY, Buchanan NY, Burlington VT, Carmel NY, Chappaqua NY, Chichester NY, Clintondale NY, Cornwall NY, Cottekill NY, Danbury CT, Delanson NY, Dobbs Ferry NY, Elka Park NY, Ellenville NY, Frederick MD, Gardiner NY, Germantown NY, Glasco NY, Glenford NY, Hastings on Hudson NY, High Falls NY, Highland NY, Hopewell Junction NY, Hudson NY, Huntington Station NY, Hurley NY, Ithaca NY, Jersey City NJ, Katonah NY, Kearny NJ, Kerhonkson NY, Kingston NY, Lake Katrine NY, Lexington NY, Livingston NJ, Long Beach CA, Los Altos CA, Los Angeles CA, Manhasset NY, Margaretville NY, Maywood NJ, Medusa NY, Millbrook NY, Monroe Township NJ, Montclair NJ, Napanoch NY, New Paltz NY, New York NY, Newburgh NY, Newton NJ, North Brunswick NJ, Nyack NY, Oakland Gardens NY, Olivebridge NY, Ossining NY, Palenville NY, Palisades Park NJ, Philadelphia PA, Pine Bush NY, Pine Plains NY, Poughkeepsie NY, Princeton NJ, Queens NY, Ravena NY, Red Hook NY, Rhinebeck NY, Rochester NY, Rosendale NY, Stone Ridge NY, Stow MA, Syracuse NY, Terrebonne QC, Tillson NY, Tivoli NY, Troy NY, Tully NY, Ulster Park NY, Waban MA, Walden NY, Waldwick NJ, Wallkill NY, Waterbury Center VT, Wawarsing NY, West Hurley NY, West Park NY, West Shokan NY, Woodridge NY, Woodstock NY

Station & Session Type	2015	2016	2017	2018	2019	2020
ULSTER COUNTY / CARR BUILDING				139	268	182
Fleet				95	73	79
Public	0	0	0	44	195	103
ULSTER COUNTY / COURTHOUSE 1	99	337	573	1162	1353	590
Fleet	0	0	5	0	5	2
Public	99	337	568	1162	1348	588
ULSTER COUNTY / COURTHOUSE 2					146	525
Fleet					0	0
Public					146	525
ULSTER COUNTY / DSS 1	21	62	169	37	554	345
Fleet	0	36	132	2	412	313
Public	21	26	37	35	142	32
ULSTER COUNTY / DSS 2				206	500	304
Fleet				195	431	287
Public				11	69	17
ULSTER COUNTY / DSS 3				48	482	365
Fleet				12	377	339
Public				36	105	26
ULSTER COUNTY / HALL OF RECORDS					13	84
Fleet					0	0
Public					13	84
ULSTER COUNTY / HEALTH DEPT 1	3	369	545	474	472	245
Fleet	0	169	285	230	244	164
Public	3	200	260	244	228	81
ULSTER COUNTY / HEALTH DEPT 2	5	200	200	44	320	149
Fleet				30	243	116
Public				14	77	33
ULSTER COUNTY / HEALTH DEPT 3				37	288	188
Fleet				7	155	132
Public				30	133	56
ULSTER COUNTY / HUTTON BUILDING				209	65	60
Fleet				186	55	59
Public				23	10	1
ULSTER COUNTY / OFFICE BUILDING	78	389	409	610	999	450
Fleet	0	171	135	36	20	12
Public	78	218	274	574	979	438
ULSTER COUNTY / POOL	70	210	274	574	979 1	438 22
					0	0
Fleet						
	45	24	00	200	1	22
ULSTER COUNTY / PROBATION DEPT	15	31	98	300	470	151
Fleet	0	0	0	0	72	65
	15	31	98	300	398	86
ULSTER COUNTY / PUBLIC WORKS	15	75	165	330	534	159
Fleet	0	0	3	0	43	23
Public	15	75	162	330	491	136
ULSTER COUNTY / SUNY EXTENSION	12	32	62	282	452	330
Fleet	0	1	3	2	3	0
Public	12	31	59	280	449	330
ULSTER COUNTY / SUNY ULSTER					216	104
Fleet					1	0
Public					215	104
ULSTER COUNTY / TRUDY RESNICK	59	86	37	88	166	147
Fleet	0	2	0	0	7	4
Public	59	84	37	88	159	143
ULSTER COUNTY / UCLEC 1	0	1	1	1	18	5
Fleet	0	0	0	0	18	2
Public	0	1	1	1	0	3
ULSTER COUNTY / UCLEC 2						0
Fleet						0
Public						0

# Appendix C: Fleet Vehicles Auctioned in 2020

# TABLE 10: FLEET VEHICLES AUCTIONED IN 2020

VEHICLE#	YEAR, MAKE, MODEL
43	2004 GMC Sierra
78	2004 Ford F-350
116	2000 Ford Taurus
174	2007 Ford Taurus
177	2007 Ford Taurus
273	2008 Ford E-450 Bus
442	2013 Dodge Grand Caravan
484	2015 Ford Explorer
523	2012 Nissan Rogue
570	2007 Volkswagen Passat
594	2017 Ford Explorer