Nebraska Community Energy Alliance
Electric Vehicle Infrastructure Report
March 2022 Edition

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NEBRASKA COMMUNITY ENERGY ALLIANCE

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ACKNOWLEDGMENT

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Executive Summary

The mission of the Nebraska Community Energy Alliance (NCEA) is to build and promote advanced technologies for housing and transportation that save energy, reduce CO_2 pollution and cut costs, (http://www.necommunity.energy/mission/). NCEA believes that demonstrating these technical advances at the local level is the best way to accelerate the market in Nebraska. Establishing the economic and environmental benefits of advanced technologies, such as electric vehicles and smart charging stations, at this level will serve the mission of the NCEA and the mission of the Nebraska Environmental Trust (NET), a grant funder. NET offers funding under the Air Quality category, requiring CO2 emissions reductions and economic benefits in return for funding this category. NCEA, in compliance with grant requirements, publishes monthly electric vehicle charging data from the NET-funded projects.

NCEA is in the sixth phase of building a statewide charging infrastructure for electrified transportation through the award of its sixth grant from NET. When completed, an estimated total of 55 electric vehicles (EVs), nine compressed natural gas vehicles (CNG), one refueling CNG station, 92 Level-2 ChargePoint™ networked charging stations, and 7 DC fast charging stations will be deployed across Nebraska. In addition, in partnering with Omaha Public Power District (OPPD), Nebraska Public Power District (NPPD), and Fremont Municipal Utility, as part of a rebate program, an additional 293 EVs, 670 ChargePoint™ Home charging stations and 60 ChargePoint™ networked charging stations will be deployed.

Data for the commercial charging infrastructure for the participating members in all six grants has been collected since 2014, while data from the residential charging infrastructure has been collected since 2018. This data is processed and analyzed on a monthly basis. The results are compared to that of conventional-fuel vehicles (CVs), diesel vehicles (DVs), and ethanol (E85) fuel vehicles to develop the economic and environmental savings. Table A shows the total calculated savings.

Table A: Total Economic and Environmental Benefits for Participating Members in all Six Grants.

	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
		CO2	CO	SO2	NOx	CH4	VOC
Savings Excluding Residential Rebate Program	$166,283	591,291	10,672	(778.09)	(740.22)	(6.72)	517.50
OPPD_ Residential Rebate Program Savings	$1,121,103	3,249,373	56,924	(8,389.05)	(3,557.21)	(205.22)	3,506.89
NPPD_ Residential Rebate Program Savings	$124,630	309,817	5,726	(218.16)	(793.25)	(6.81)	343.78
Fremont_ Residential Rebate Program Savings	$11,859	39,324	620	(72.66)	(25.66)	(4.77)	38.95
Total Saving	$1,423,875	4,189,805	73,942	(9,457.96)	(5,116.34)	(223.52)	4,407

In addition to the data from the participating members, data from other existing stations in Nebraska is collected and analyzed since 2013. Tables B-H provide a summary of analysis on all collected data. There are some discrepancies between each month's data. This is due to data availability for newly installed and/or activated charging stations and timing when new installed stations start to report and or commercial/residential stations not being connected to the network for a period of time.

Table B: Cumulative Charging Infrastructure Usage and Benefits for all Participating Commercial Charging Stations.

Charging Station Location	Number of Charging stations/(Ports)	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO_2	CO	SO_2	NOx	CH_4	VOC
Allen Schools	1 / (2)	1,292	13,612	$5,155	26,168	511.01	(30.83)	(6.06)	1.27	18.48
Auburn Board of Public Works	3 / (5)	848	5,840	$2,527	10,307	123.36	(6.33)	2.23	(0.39)	7.53
Aurora	2 / (3)	306	1,910	$900	2,785	41.06	(4.64)	(5.58)	(0.11)	2.48
Ashland	2 / (3)	1,257	12,905	$4,770	16,551	286.63	(40.35)	(14.80)	(0.20)	16.12
Bellevue	1 / (2)	1,295	12,080	$3,959	25,594	571.21	(33.69)	18.47	1.87	16.91
B & R Stores	6 / (9)	1,057	10,679	$5,165	4,663	223.40	(29.15)	(17.77)	(2.38)	13.87
Central City	1 / (2)	33	522	$163	1,264	31.44	(1.18)	1.59	0.13	0.78
Central Community College	4 / (8)	615	3,750	$1,810	5,310	80.10	(9.27)	(11.42)	(0.22)	4.83
Dakota County	1 / (2)	492	6,573	$2,673	10,647	175.38	(16.08)	(13.77)	0.06	8.56
Ferguson House, Lincoln office of NCEA	1 / (2)	719	6,693	$2,743	9,769	218.04	(7.71)	(16.67)	0.51	8.92
Fremont	2 / (4)	1,841	28,087	$10,797	34,800	558.45	(66.88)	(24.82)	(4.38)	35.16
Gothenburg	-		0	$720	6,020	155.11	(5.30)	8.68	0.64	3.56
Gretna	3 / (5)	3,144	31,232	$12,545	37,509	733.75	(89.00)	(30.76)	(1.75)	35.47
Hastings	1 / (2)	168	1,529	$617	1,232	35.88	(3.99)	(0.77)	(0.06)	1.93
Holdrege	1 / (2)	162	1,559	$641	2,519	43.55	(3.74)	(2.84)	0.03	2.04
Kearney	5 / (8)	3,325	31,675	$13,289	50,221	788.86	(75.23)	(68.49)	0.35	40.83
LES	14 / (16)	2,901	47,588	$19,687	55,379	1,209.85	(34.88)	(209.60)	2.09	61.21
Lexington	2 / (4)	1,112	13,052	$4,737	21,826	385.30	(31.26)	(20.92)	0.55	17.07
Lincoln	15 / (30)	9,639	102,434	$42,778	114,165	2,358.73	(77.37)	(455.29)	4.58	128.74
Lincoln Public Schools	7 / (7)	1,097	8,086	$3,831	10,445	171.85	(7.15)	(13.17)	(0.30)	10.35
MCC	8 / (15)	3,357	36,333	$15,618	43,629	751.81	(110.48)	(45.36)	(2.67)	46.39
Nebraska City	4 / (6)	2,809	29,140	$12,737	63,475	894.58	(43.29)	30.55	0.96	38.92
Norfolk	1 / (2)	77	893	$321	1,457	19.51	(1.75)	(12.65)	(0.02)	1.15
Nebraska Safety Center at UNK	1 / (2)	54	284	$118	407	5.92	(0.70)	(0.87)	(0.01)	0.36
NP Dodge	2 / (3)	178	3,233	$1,134	3,681	64.70	(9.68)	(4.70)	(0.22)	3.98
NPPD	13 / (23)	2,217	28,766	$12,952	36,674	613.17	(25.50)	(50.76)	(1.08)	36.92
Minden	1 / (2)	128	910	$462	1,631	20.57	(1.92)	(1.76)	(0.04)	1.24
OPPD	3 / (6)	5,063	29,039	$9,835	55,364	1,209.12	(85.77)	27.83	3.42	39.82
City of Omaha	20 / (38)	2,484	28,780	$13,808	47,117	632.62	(65.14)	(69.33)	(1.25)	38.14
Omaha Zoological Society	2 / (4)	864	6,985	$2,978	7,426	143.49	(19.48)	(9.15)	(0.67)	8.82
Papio-Missouri NRD	1 / (2)	2,766	26,918	$10,674	32,720	541.21	(84.31)	(38.16)	(1.59)	33.36
Seward	4 / (7)	1,066	15,072	$5,296	26,323	490.06	(35.76)	(16.49)	1.04	19.93
South Sioux City	6 / (11)	4,128	51,658	$18,701	90,315	1,674.13	(123.07)	(49.81)	3.52	68.18
UNMC	2 / (4)	712	6,530	$2,805	7,036	134.94	(18.30)	(8.31)	(0.63)	8.30
UNO	4 / (8)	3,617	31,386	$12,310	37,911	637.34	(97.80)	(41.98)	(1.76)	27.90
Valley	1 / (2)	262	2,027	$717	3,173	63.57	(6.15)	(0.30)	0.10	2.65
Wayne	1 / (2)	164	2,262	$1,889	8,787	64.17	(5.13)	(39.86)	0.25	2.85
Total	146 / (253)	61,249	640,020	$261,865	914,300	16,663.85	(1,308.26)	(1,212.85)	1.64	813.76

Table C: Analysis for DC Fast Chargers and all Level 2 Charging Stations.

Commercial Charging Station Type	Number of Charging Ports	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO2	CO	SO2	NOx	CH4	VOC
Level 2 Charger	239	57,720	580,335	$234,908	846,722	15,385.76	(1,164.32)	(1,115.46)	7.05	746.46
DC Fast Charger	14	3529	59,684	$26,957	67,577	1,278.09	(143.94)	(97.39)	(5.4093)	67.2997
Total	253	61,249	640,020	$261,865	914,300	16,663.85	(1,308.26)	(1,212.85)	1.64	813.76

Table D: Detail Usage and Benefits for the DC Charging Stations.

Participating Members	Number of Charging stations/(Ports)	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO2	CO	SO2	NOx	CH4	VOC
Ashland (DC)	1 / (1)	662	8,547	$3,230	11,115	194.40	(26.65)	(9.18)	-0.11	10.74
Gretna (DC)	1 / (1)	1016	20,547	$8,737	21,936	424.98	(57.15)	(26.07)	(2.02)	26.15
Aurora (DC)	1 / (1)	75	1,667	$789	2,430	35.84	(4.06)	(4.87)	(0.09)	2.16
South Sioux City (DC)	1 / (1)	250	4,110	$1,859	5,767	87.62	(10.21)	(12.67)	(0.24)	5.29
B & R Stores (DC)	3 / (3)	640	9,943	$4,802	4,351	207.77	(27.10)	(16.51)	(2.22)	3.19
Kearney (DC)	2 / (2)	144	3,293	$1,729	5,620	73.52	(7.23)	(7.21)	(0.15)	4.43
Auburn (DC)	1 / (1)	188	3,442	$1,554	6,095	73.06	(3.60)	1.34	(0.27)	4.46
City of Omaha (DC)	1 / (1)	61	899	$533	2,207	22.29	(1.33)	0.01	(0.01)	1.34
NPPD (DC)	3 / (3)	493	7,236	$3,725	8,056	158.60	(6.62)	(22.22)	(0.29)	9.55
Total	14 / (14)	3,529	59,684	$26,957	67,577.45	1,278.09	(143.94)	(97.39)	(5.41)	67.30

Table E: Cumulative Charging Infrastructure Usage and Benefits for the OPPD Rebate Program from Apr`2018 to March 2022.

Commercial Charging Station Type	Number of Charging Ports	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO2	CO	SO2	NOx	CH4	VOC
2018	123	10,483	118,977	$49,141	179,364	2,567	(457)	(204)	(3)	159
2019	108	45,509	540,911	214,065	809,407	11,583	(2,063)	(919.2)	(11.7)	715.5
2020	129	47,899	610,663	196,752	762,276	12,464	(1,984)	(939)	(33)	768
2021	125	82,898	1,137,205	479,489	1,097,510	22,862	(2,988)	(1,585)	(116)	1,401
Jan`2022	1	7,904	112,373	$49,681	120,893	2,249.14	(270.13)	(38.50)	(13.58)	140.31
Feb`2022		7,513	108,286	$60,562	137,597	2,559.91	(307.45)	(43.82)	(15.46)	159.70
Mar`2022		7,940	110,230	$70,905	140,066	2,605.85	(312.97)	(44.61)	(15.74)	162.57
Total	486	210,146	2,738,646	1,121,103	3,249,372	56,924	(8,389.05)	(3,557.21)	(205.22)	3,506.89

Note that the data and analysis results differ from month to month in the report because some stations become inactive and not connected to the network for a period of time before they reconnect.

Table F: Cumulative Charging Infrastructure Usage and Benefits for the NPPD Rebate Program from Mar`2018 to March 2022.

Commercial Charging Station Type	Number of Charging Ports	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO2	CO	SO2	NOx	CH4	VOC
2018	4	869	3,875	1,504	3,512	79.96	(2.82)	(24.80)	0.37	4.67
2019	6	1,664	8,906	3,449	7,704	182.64	(0.23)	(73.37)	0.78	10.66
2020	20	2,406	31,561	10,762	37,006	649.71	(14.55)	(129.31)	0.75	38.56
2021	28	9,535	170,096	$72,549	235,391.35	3,349.49	(138.87)	(54.52)	(5.64)	201.70
Jan`2022	1	1,057	20,601	$9,629	7,626.66	426.19	(17.9566)	(148.8063)	(0.8910)	25.6675
Feb`2022		956	19,826	$11,554	8,669.11	484.44	(20.4110)	(169.1461)	(1.0128)	29.1759
Mar`2022		1,104	22,657	$15,183	9,906.83	553.61	(23.3251)	(193.2956)	(1.1574)	33.3414
Total	59	17,724	278,492	$124,630	309,817.44	5,726.04	(218.16)	(793.25)	(6.81)	343.78

Table G: Cumulative Charging Infrastructure Usage and Benefits for the Fremont Rebate Program from Aug`2019 to March 2022.

Commercial Charging Station Type	Number of Charging Ports	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO2	CO	SO2	NOx	CH4	VOC
2019	4	242	4,635	$1,582	5,177.09	86.94	(11.7985)	(6.1574)	(0.7336)	5.60
2020	1	458	9,795	$2,914	11,195.62	188.15	(24.3160)	(10.9402)	(1.5558)	11.97
2021	0	573	12,945	$5,367	15,474.60	260.41	(30.3022)	(8.5672)	(2.0659)	16.15
Jan`2022	0	50	1,318	$569	2,350.07	26.53	(1.9630)	0.0002	(0.1301)	1.6409
Feb`2022		47	1,281	$704	2,697.90	30.46	(2.2536)	0.0002	(0.1494)	1.8837
Mar`2022		45	1,153	$724	2,428.63	27.42	(2.0286)	0.0002	(0.1345)	1.6957
Total	5	1,415	31,128	$11,859	39,323.92	619.91	(72.66)	(25.66)	(4.77)	38.95

Table H: Summary of Monthly and Cumulative Commercial and Utility/Residential Usage for all Participating Stations.

		Month of March, 2021		Cumulative		Combined Savings	
		Commercial	Residential	Commercial	Residential	Month of March, 2021	Cumulative
Number of Charging Sessions		2,447	5,698	61,249	229,285	8,145	290,534
Energy Usage (in kWh)		30,632	82,960	640,020	3,048,265	113,592	3,688,285
Environmental Benefits: Emissions Reductions (in lbs.)	CO_2	42,065	80,661	914,300	3,598,514	122,727	4,512,814
	CO	743.21	1,611	16,664	63,270	2,355	79,934
	VOC	45.27	98.60	813.76	3,890	144	4,703
Economic Savings		$20,015	$26,776	$261,865	$1,257,592	46,791	1,519,457

Considering that the combined national average for conventional vehicles is 25.7 miles per gallon based on the combined fuel economy average (city and highway) of all the vehicle types (make and model) published in the Fuel Economy Guide for the year 2020, and the combined fuel economy for all electric vehicles is 4.03 miles per kilowatt hour (mi/ kWh) based on the combined fuel economy average (city and highway) of all the electric vehicle types (make and model) in the same report, a general comparison is made using the equation below to generate Table I.

$$Miles\ driven\ based\ on\ \$50 = \frac{50}{\mathbf{0.0884}} * 4.03 = \frac{50}{\mathbf{0.5638}} * 25.7 = 2{,}279\ \text{miles}$$

Table I: Summary of Yearly Gas and Electricity Prices and the Corresponding Miles Driven.

Year	Gas Price (Gallon)	Electricity Price (kWh)	Conventional Vehicle (CV) (Miles Per Gallon)	Battery Electric Vehicle (Miles Per kWh)	Miles driven based on $50	
					Gas	Electricity
2017	**$2.36**	**0.091333**	**23.246**	**3.323**	**492**	**2025**
2018	**$2.62**	**0.092176**	**23.312**	**3.323**	**444**	**1802**
2019	**$2.49**	**0.092176**	**23.272**	**3.323**	**468**	**1802**
2020	**$2.09**	**0.089038**	**25.1**	**3.412**	**601**	**1916**
2021	**$2.885**	**0.0884**	**25.7**	**4.03**	**445.4**	**2,279**
Parity	**$0.5638**	**0.0884**	**25.7**	**4.03**	**2,279**	**2,279**

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1. Project Description and Summary Savings

1.1. Introduction

The Nebraska Community Energy Alliance (NCEA) was founded in Jan 2014 as an interlocal cooperative agency. Today, it has 37 participating members that span the entire state of Nebraska, as shown in Figure 1 and Table 1.

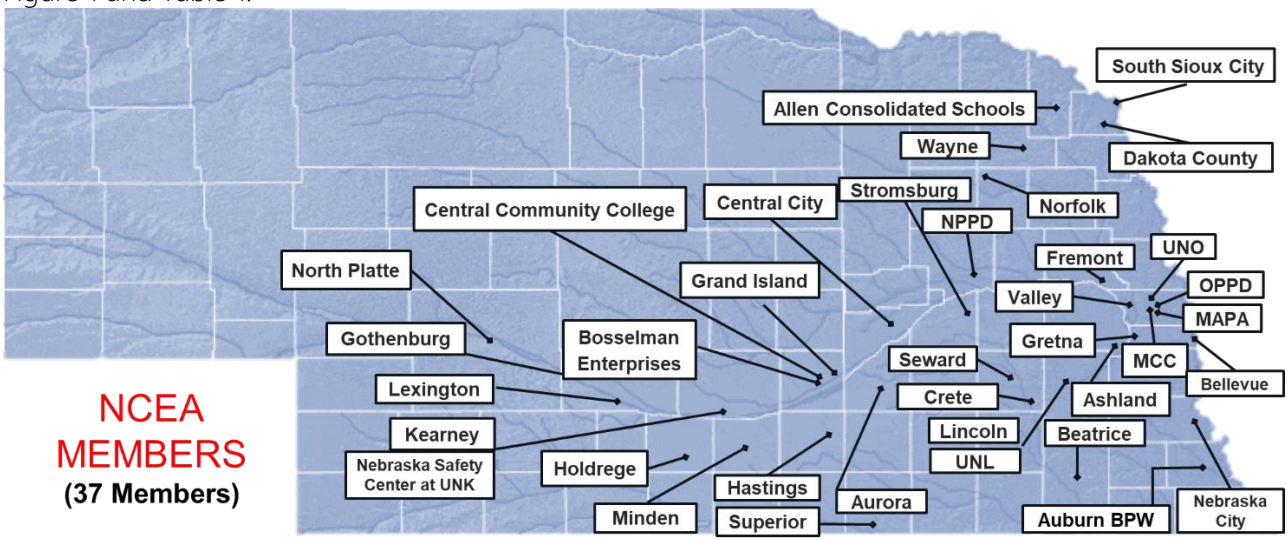

Figure 1: Nebraska Map Showing the 37 NCEA Participating Members.

The mission of the Nebraska Community Energy Alliance (NCEA) is to build and promote advanced technologies for housing and transportation that save energy, reduce CO_2 pollution and cut costs, (http://www.necommunity.energy/mission/). This mission is clearly articulated by Lance Hedquist, city administrator for South Sioux City, founder of NCEA and current member, "*Communities have a choice to simply exist or to lead. Our projects demonstrate leadership and help motivate and excite our citizens.*"

NCEA believes demonstrating the economic and air quality benefits of advanced fuel vehicles at the local level is the best way to accelerate the market in Nebraska. This mission is being achieved in part using grant funding from the Nebraska Environmental Trust (NET) and in compliance with the requirements of the Air Quality funding category as well as NET's mission "to conserve, enhance and restore the natural environments of Nebraska." (http://www.environmentaltrust.org/about/index.html).

Table 1: NCEA Members

NCEA Members (37)

- Allen Consolidated Schools
- Ashland
- Auburn BPW
- Aurora
- Beatrice
- Bellevue
- Bosselman Enterprises
- Central City
- Central Community College(CCC)
- Crete
- Dakota County
- Fremont
- Gothenburg
- Grand Island
- Gretna
- Hastings
- Holdrege
- Kearney
- Lexington
- Lincoln
- Metropolitan Area Planning Agency (MAPA) (includes cities and counties in Washington, Douglas, and Sarpy counties, including the City of Omaha)
- Metropolitan Community College
- Minden
- Nebraska City
- Nebraska Safety Center at UNK
- Nebraska Public Power District
- Norfolk
- North Platte
- Omaha Public Power District (OPPD)
- Seward
- South Sioux City
- Stromsburg
- Superior
- University of Nebraska at Omaha
- University of Nebraska-Lincoln
- Valley
- Wayne

NCEA is in the sixth phase of building a statewide charging infrastructure for electrified transportation through the award of its sixth grant from NET. When completed, an estimated total of 55 electric vehicles (EVs), nine compressed natural gas vehicles (CNG), one refueling CNG station, 92 Level-2 ChargePoint™ networked charging stations, and 7 DC fast charging stations will be deployed across Nebraska. In addition, in partnering with Omaha Public Power District (OPPD), Nebraska Public Power District (NPPD), and Fremont Municipal Utility, as part of a rebate program, an additional 293 EVs, 670 ChargePoint™ Home charging stations and 60 ChargePoint™ networked charging stations will be deployed. Table 2 shows the participating members and their involvement.

Table 2: Summary of Involvement of Participating Members over All Grant Cycles.

Participating Members	Electric Vehicle	CNG Vehicles	Charging Stations	DC Fast Charger
Allen Consolidated Schools	**1**	**-**	**1**	
Ashland	**-**	**-**	**1**	**1**
Auburn Department of Public Works	**-**	**-**	**2**	**1**
Aurora	**-**	**-**	**4**	
Beatrice	**1**		**1**	
Bellevue	**2**	**-**	**4**	
Central City	**1**	**-**	**1**	
Central Community College	**4**		**4**	
Dakota County	**1**	**-**	**1**	
Ferguson House (Lincoln)	**-**	**-**	**1**	
Fremont	**5**	**-**	**2**	
Fremont Municipal Utility Rebate Program	**11**	**-**	**10 - ChargePoint Home™**	
Gothenburg	**1**	**-**	**-**	
Gretna	**1**	**-**	**2**	**1**
Hastings	**3**	**-**	**1**	
Holdrege	**-**	**-**	**1**	
Kearney	**3**	**-**	**5**	
Lexington	**2**	**-**	**2**	
Lincoln	**1**	**-**	**22**	
Metro Community College	**1**	**-**	**2**	
Minden	**1**		**1**	
Nebraska City	**1**	**3 CNGs and one refueling station**	**2**	
Norfolk	**2**		**2**	
NPPD	**8**	**-**	**15**	**4**
NPPD Rebate Program	**57**	**-**	**110 - ChargePoint Home™**	
OPPD	**3**	**-**	**8**	
OPPD Rebate Program	**225**	**-**	**550 - ChargePoint Home™** (60) Workplace Charging stations	
Seward	**2**	**-**	**2**	
South Sioux City	**4 + 4 battery replacement** 1-Zero Motorcycle	**2**	**3**	
UNK	**1**	**-**	**1**	
Valley	**1**	**-**	**1**	
Wayne	**1**	**4**	**-**	
TOTAL	**348 (293 Via Utility Rebate programs & counting 4 battery replacements)**	**9**	**152 Commercial (60 via rebate to businesses) & 670 Residential**	**7**

1.2. Existing Stations Summary

Figure 2 shows the locations of the commercial ChargePoint Stations in Nebraska. Table 3 provides detailed information on the location of each existing ChargePoint™ charging station installed as part of all grant phases along with the rate structure. Furthermore, the Table shows additional stations that NCEA and the research team access for data analysis. Finally, the Table provides the net revenue from charging (current month and all time) based on the rate structure.

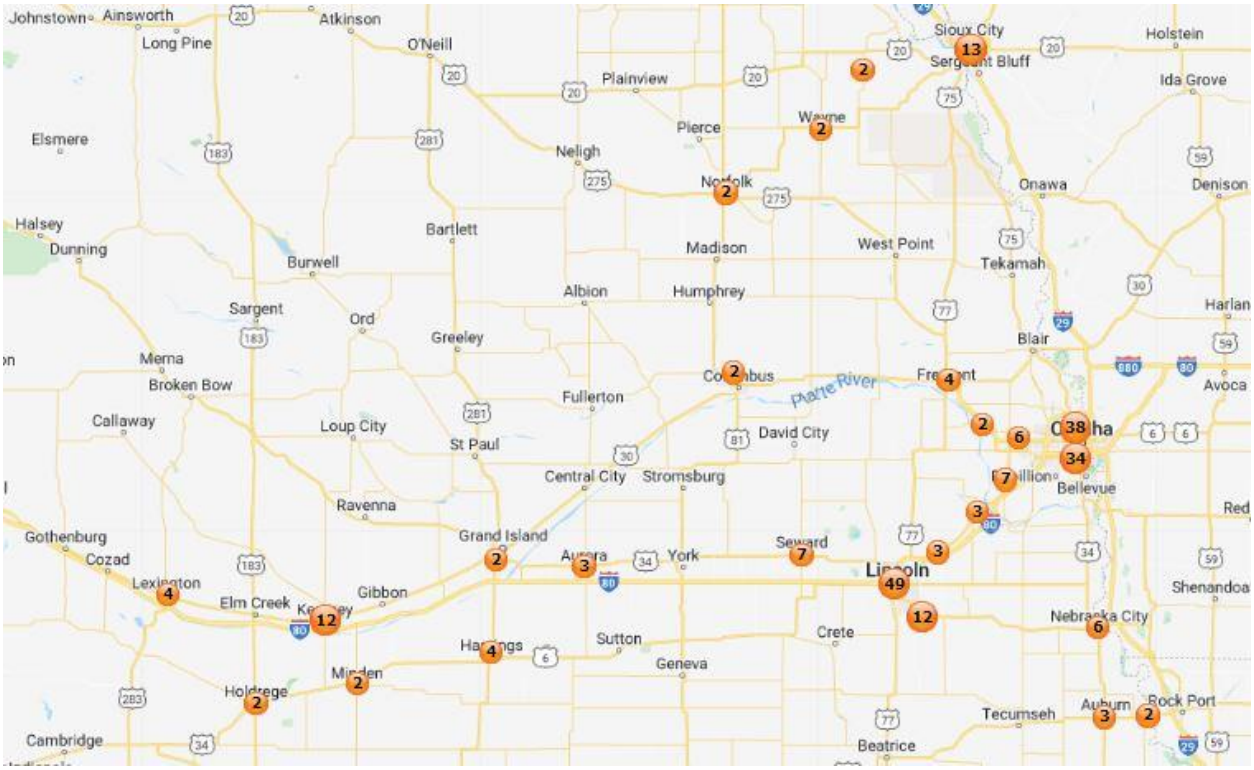

Figure 2: ChargePoint Charging Station Locations Across Nebraska, Numbers Shown Indicate Number of Charging Station

2. Data Analysis

In collaboration with the Durham School of Architectural Engineering and Construction (DSAEC) at the University of Nebraska-Lincoln, data is collected, processed, and analyzed to document the economic and environmental benefits of utilizing existing charging stations infrastructure throughout Nebraska. More information is available at the project's main website (http://necommunity.energy). The following sections provide findings and trends pertaining to the EV charging infrastructure usage and savings/benefits.

Regardless of the period, the economic and environmental benefits for each community and the overall benefits for the state of Nebraska highlight the impact these projects are having on improving our own environment and economic well-being.

2.1. Summary of Unique User Data (Commercial)

This section provides a summary of the number of unique users for each public ChargePoint charging station, the research team has access to, and for each NCEA participating member for the month of March 2022 and since installation (see Table 3). If a user uses a single station or multiple stations multiple times in a given month, he/she will only be counted once during that entire month. Once a new month starts, unique user counting will reset.

Table 3 summarizes the cumulative yearly unique user data in terms of the number of unique drivers and charging sessions, as well as the energy usage, since the start of the data collection from Apr`2013 to 2019 and then monthly for current year.

Table 3: Summary of Unique User Data, Charging Sessions and Energy Usage.

Year	Number of Unique Users	No of Charging Sessions	Energy Usage (kWh)
2013	19	618	3,410
2014	45	1,003	4,940
2015	97	1,962	14,114
2016	211	2,825	23,871
2017	427	4,361	34,715
2018	756	7,148	61,136
2019	1,137	9,471	108,238
2020	1,250	7,228	88,426
2021	3,530	17,086	210,054
Jan 2022	615	1,483	21,212
Feb 2022	**768**	1,856	22,893
Mar 2022	1,000	2,447	30,632

Table 4 shows the monthly summary of the same categories for the month of March 2022. The summary includes the breakdown of the obtained data according to each participating station.

Table 4: Unique User and Energy Information for March 2022.

Charging Station Location	Number of Unique Users in March 2022	Number of Charging Sessions	Energy Usage (kWh)
Allen Consolidated Schools	2	24	299
Auburn Board of Public Works	21	32	340.678
Aurora	7	11	216.60
Ashland	14	28	464
Bellevue	0	0	0
B & R Stores	59	115	1,100
Central City*			0.00
Central Community College	12	81	498.49
Dakota County	2	17	280
Ferguson House, Lincoln office of NCEA	11	18	331
Fremont	23	49	686
Gothenburg			0.00
Gretna	49	83	1,266
Hastings	2	2	32
Holdrege	5	5	39.101
Kearney	63	123	2,095
LES	112	141	2,339
Lexington	14	22	485
Lincoln	110	338	3,851
Lincoln Public Schools	36	91	678
MCC	70	244	3,357
Nebraska City	35	94	1,229
Norfolk	2	2	21
Nebraska Safety Center at UNK	1	4	34.759
NP Dodge	10	15	20.63
NPPD	79	163	2,252.19
Minden	7	25	216.66
OPPD	4	16	208
City of Omaha	125	361	4,738
Omaha Zoological Society	36	49	317.918
Papio-Missouri NRD	18	44	600
Seward	7	11	249
South Sioux City	20	81	979
UNMC	17	51	374.938
UNO	26	104	1,018
Valley	1	3	15
Wayne	0	0	0
Total	1,000	2,447	30,632

Total number of available charging ports: 253.

Figures 3, 4, and 5 show charging infrastructure installation and usage trends over the period of data collection (since Jan 2013).

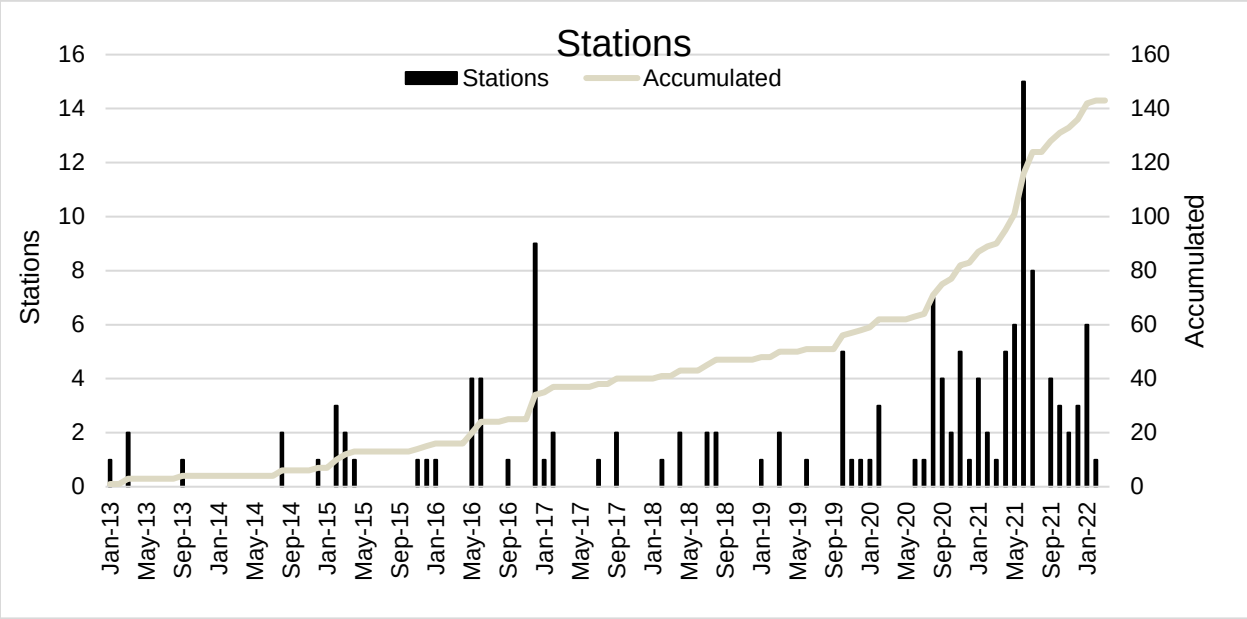

Figure 3: Number of Charging Stations Installed per Month Since Jan` 2013.

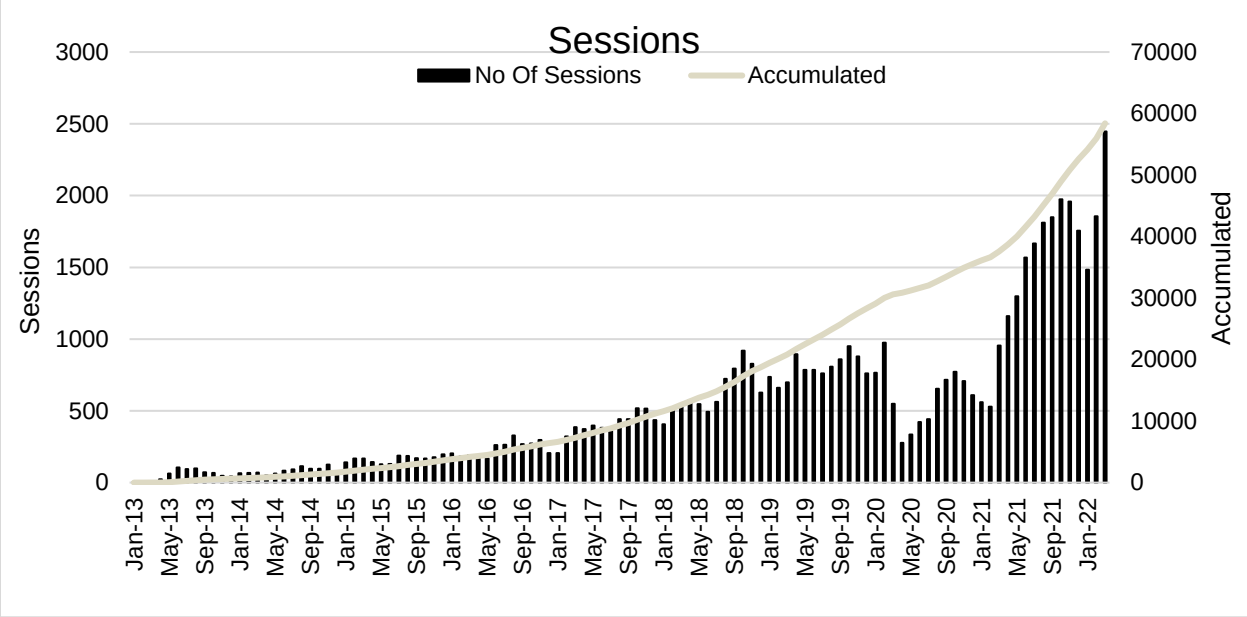

Figure 4: Number of Charging Sessions per Month Since Jan` 2013.

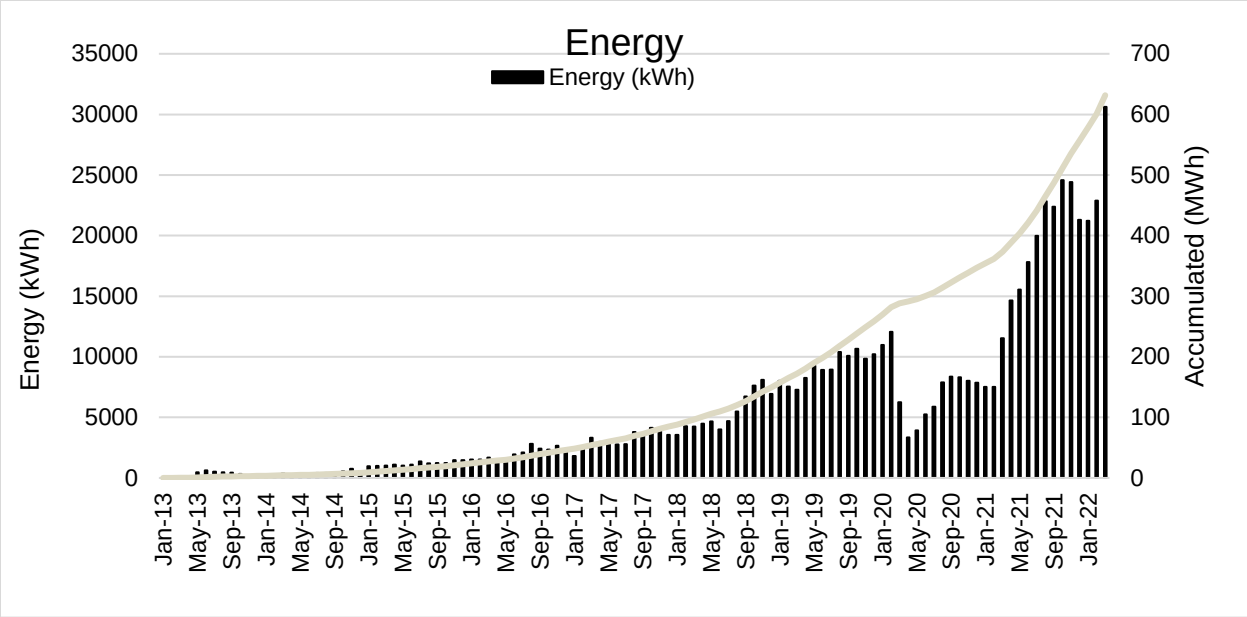

Figure 5: Energy Usage per Month Since Jan` 2013.

2.2. Summary of Unique User Data (Utility/Residential)

This section focuses on the utility rebate programs.

- OPPD Rebate Program

Table 5a shows the charging infrastructure usage summary for the data obtained since the inception of the rebate program for OPPD in Apr 2018. Cumulative Number of Installed Stations might vary from month to month because of the number of stations that lose connection to the network.

Table 5a: Summary of Installed OPPD Residential Charging Stations and Energy Usage per Month Since Apr` 2018.

	Number of Installed Stations Each Month	Cumulative Number of Installed Stations	Number of Charging Sessions	Energy Usage (kWh)
2018 Total	123	**123**	**10,487**	**119,049**
2019 Total	108	**231**	**45,921**	**547,841**
2020 Total	129	**360**	**48,022**	**611,576**
2021 Total	125	**485**	**82,898**	**1,137,205**
Jan`2022	1		7,904	112,373
Feb`2022			7,513	108,286
Mar`2022			7,940	110,230
Total		**486**	**210,146**	**2,738,646**

The data shown in Table 5a is presented in Figures 6a, 7a, and 8a. Note that the data and analysis results differ from month to month in the report because some stations become inactive and not connected to the network for a period of time before they reconnect. Figure 6a shows the number of charging infrastructure installed since the inception of the rebate program as well as the cumulative number of charging stations; Figure 7a and Figure 8a show the trends of charging sessions and energy usage respectively, over the same time period.

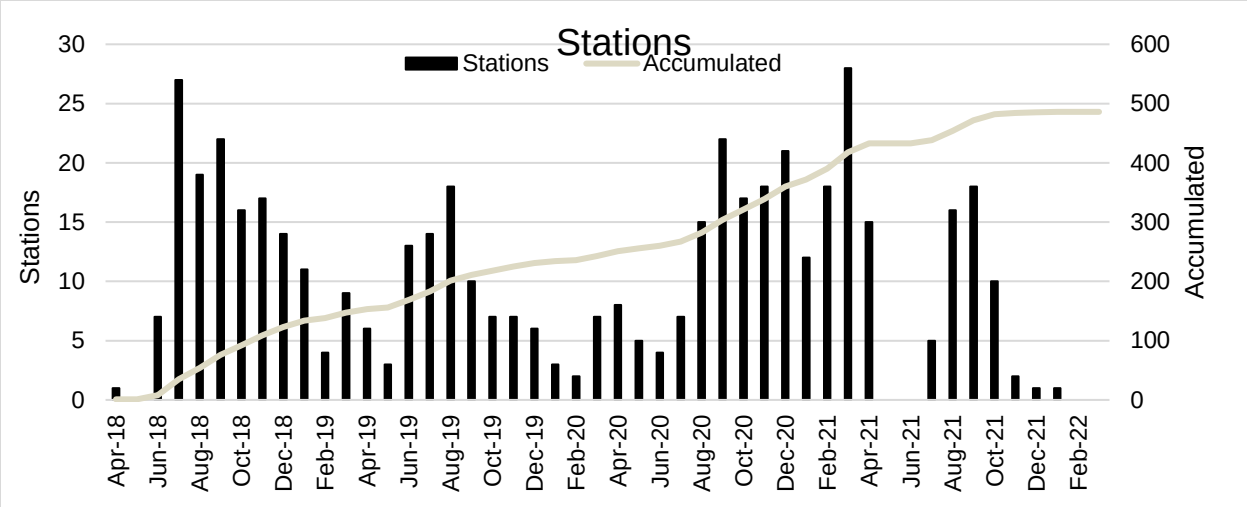

Figure 6a: Number of Charging Stations Installed per Month Since Apr 2018.

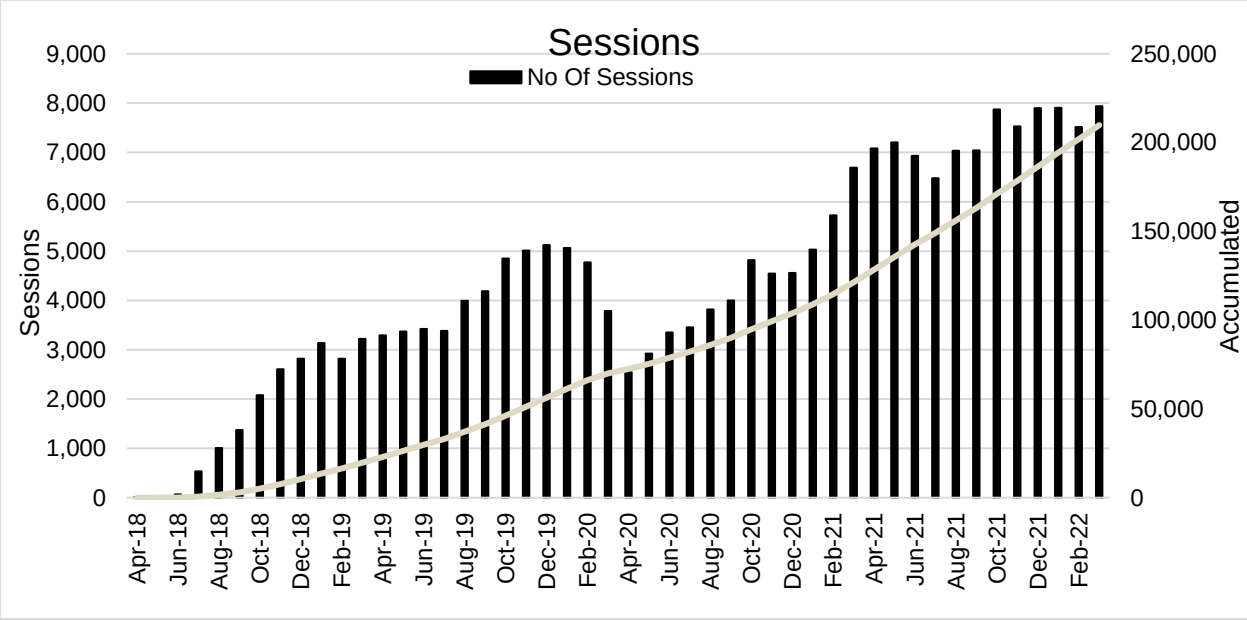

Figure 7a: Number of Charging Sessions per Month Since Apr 2018.

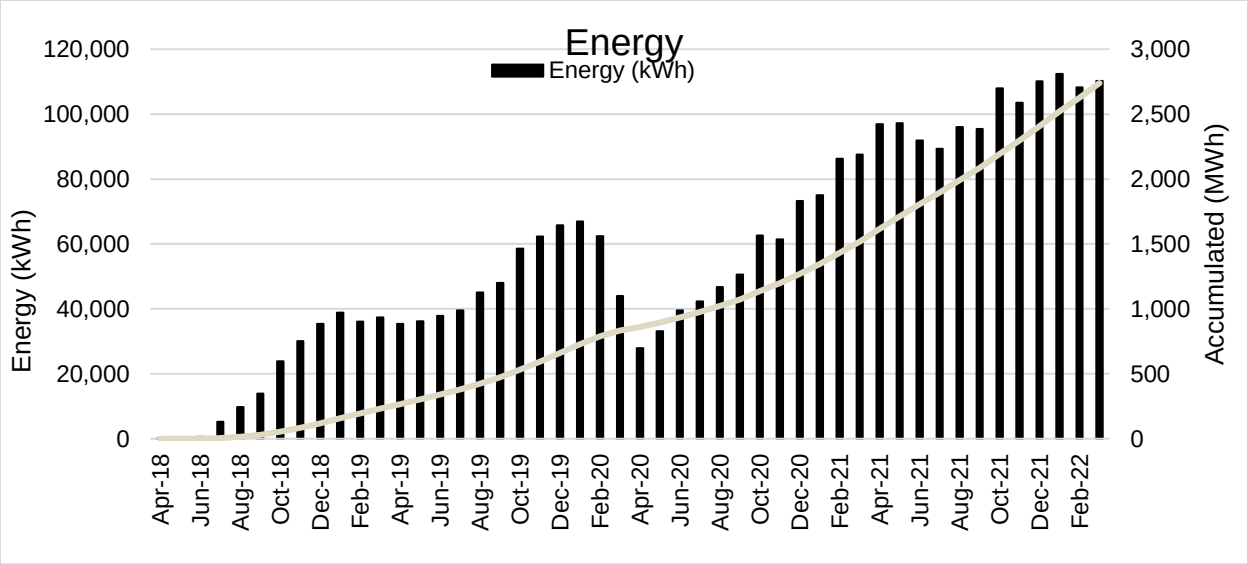

Figure 8a: Energy Usage per Month Since Apr 2018.

- NPPD Rebate Program

Table 5b shows the charging infrastructure usage summary for the data obtained since the inception of the rebate program for NPPD in Mar 2018. Cumulative Number of Installed Stations might vary from month to month because of the number of stations that lose connection to the network.

Table 5b: Summary of Installed NPPD Residential Charging Stations and Energy Usage per Month Since Mar` 2018.

	Number of Installed Stations Each Month	Cumulative Number of Installed Stations	Number of Charging Sessions	Energy Usage (kWh)
2018 Total	4	**4**	**869**	**3875.868**
2019 Total	6	**10**	**1,664**	**8,906**
2020 Total	20	**30**	**2,406**	**31,561**
2021 Total	28	**58**	**9,535**	**170,096**
Jan`2022	1		1,057	20,601
Feb`2022			956	19,826
Mar`2022			1,104	22,657
Total		**59**	**17,724**	**278,492**

The data shown in Table 5b is presented in Figures 6b ,7b, and 8b. Figure 6b shows the number of charging infrastructure installed since the inception of the rebate program as well as the cumulative number of charging stations; Figure 7b and Figure 8b show the trends of charging sessions and energy usage respectively, over the same time period.

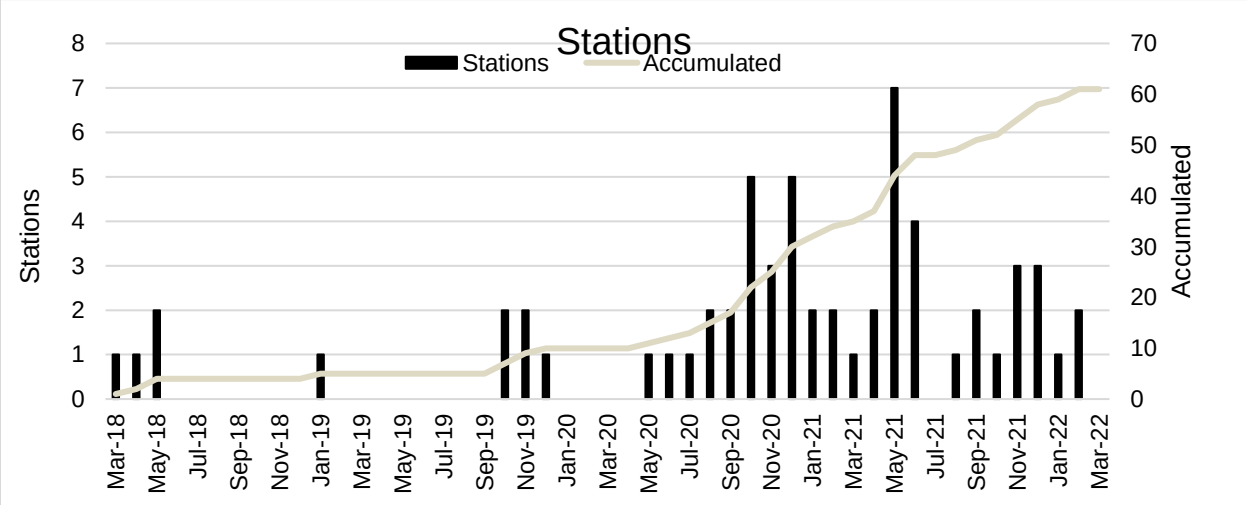

Figure 6b: Number of Charging Stations Installed per Month Since Mar 2018.

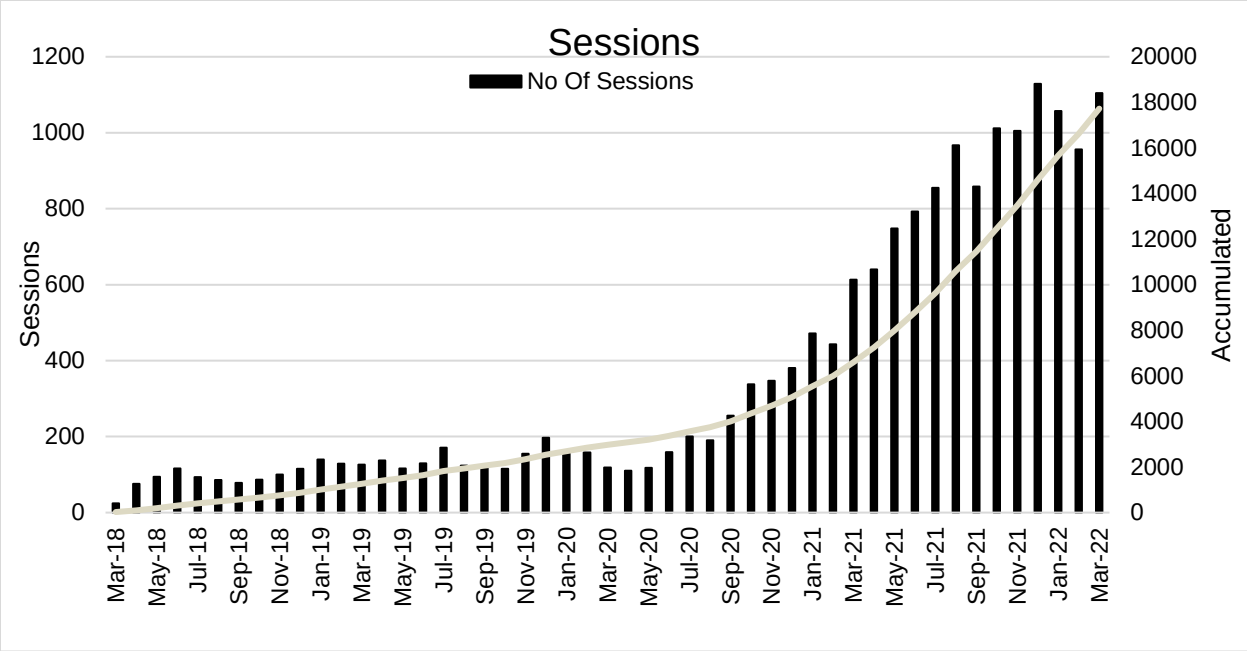

Figure 7b: Number of Charging Sessions per Month Since Mar 2018.

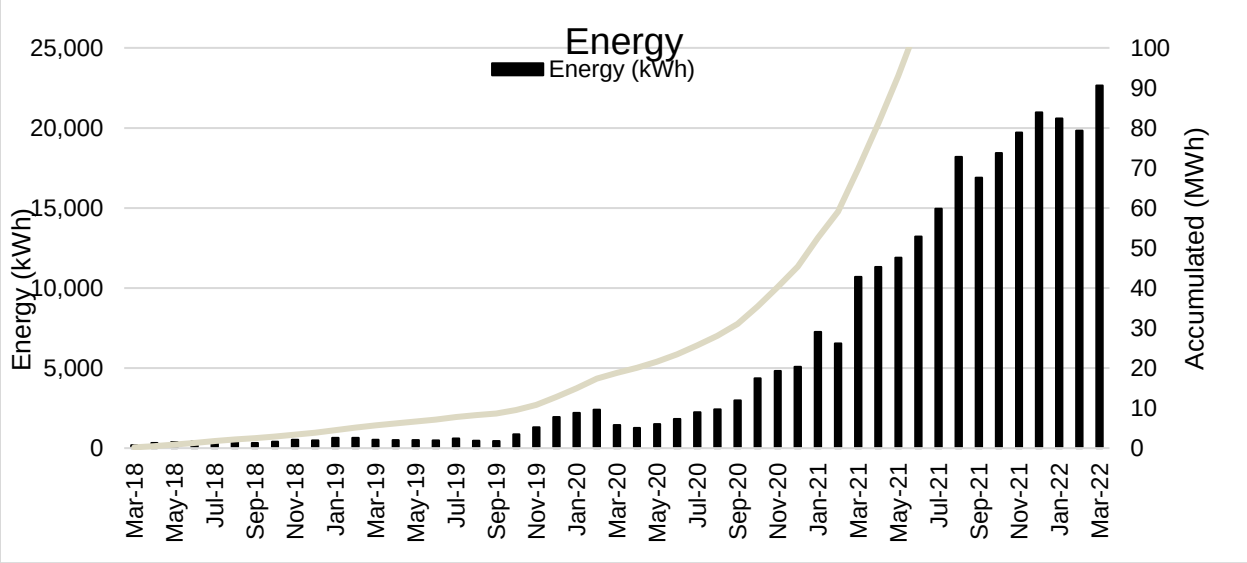

Figure 8b: Energy Usage per Month Since Mar 2018.

- Fremont Rebate Program

Table 5c shows the charging infrastructure usage summary for the data obtained since the inception of the rebate program for NPPD in Aug 2019. Cumulative Number of Installed Stations might vary from month to month because of the number of stations that lose connection to the network.

Table 5c: Summary of Installed Residential Charging Stations and Energy Usage per Month Since Aug` 2019.

	Number of Installed Stations Each Month	Cumulative Number of Installed Stations	Number of Charging Sessions	Energy Usage (kWh)
2019 Total	**4**	**4**	**242**	**4,635**
2020 Total	**1**	**5**	**458**	**9,795**
2021 Total	**0**	**5**	**573**	**12,945**
Jan`2022			**50**	**1,318**
Feb`2022			**47**	**1,281**
Mar`2022			**45**	**1,153**
Total		**5**	**1,415**	**31,128**

The data shown in Table 5c is presented in Figures 6c ,7c, and 8c. Figure 6c shows the number of charging infrastructure installed since the inception of the rebate program as well as the cumulative number of charging stations; Figure 7c and Figure 8c show the trends of charging sessions and energy usage respectively, over the same time period.

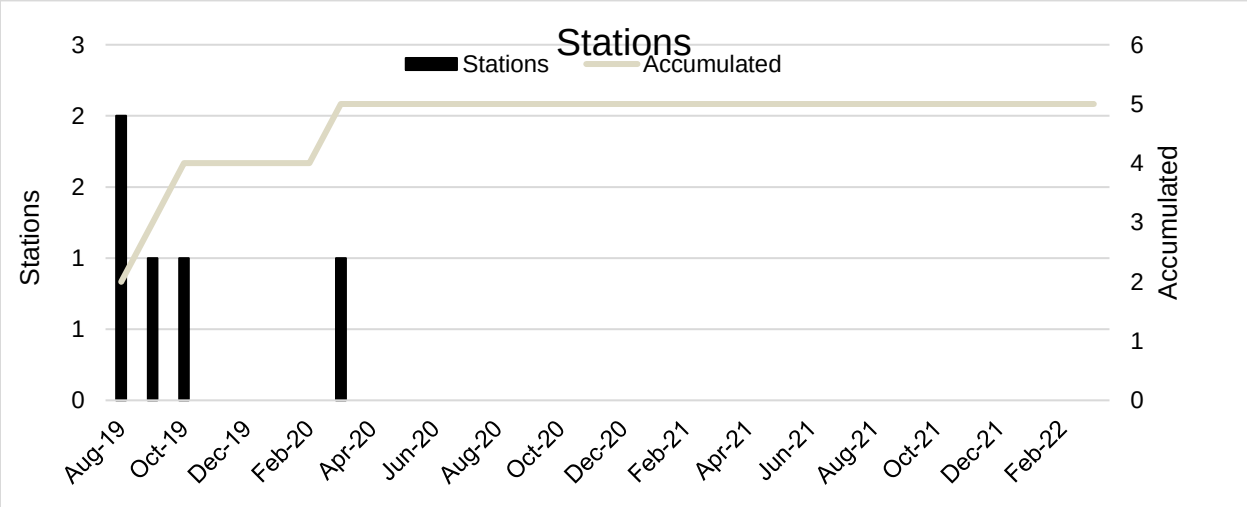

Figure 6c: Number of Charging Stations Installed per Month Since Aug 2019.

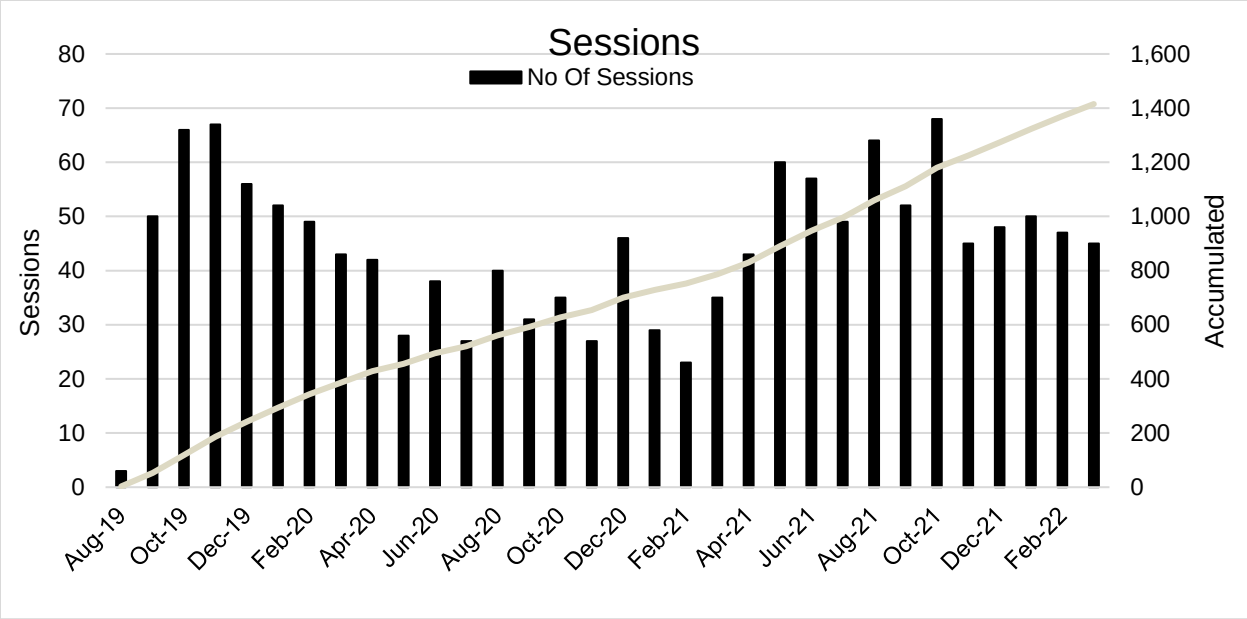

Figure 7c: Number of Charging Sessions per Month Since Aug 2019.

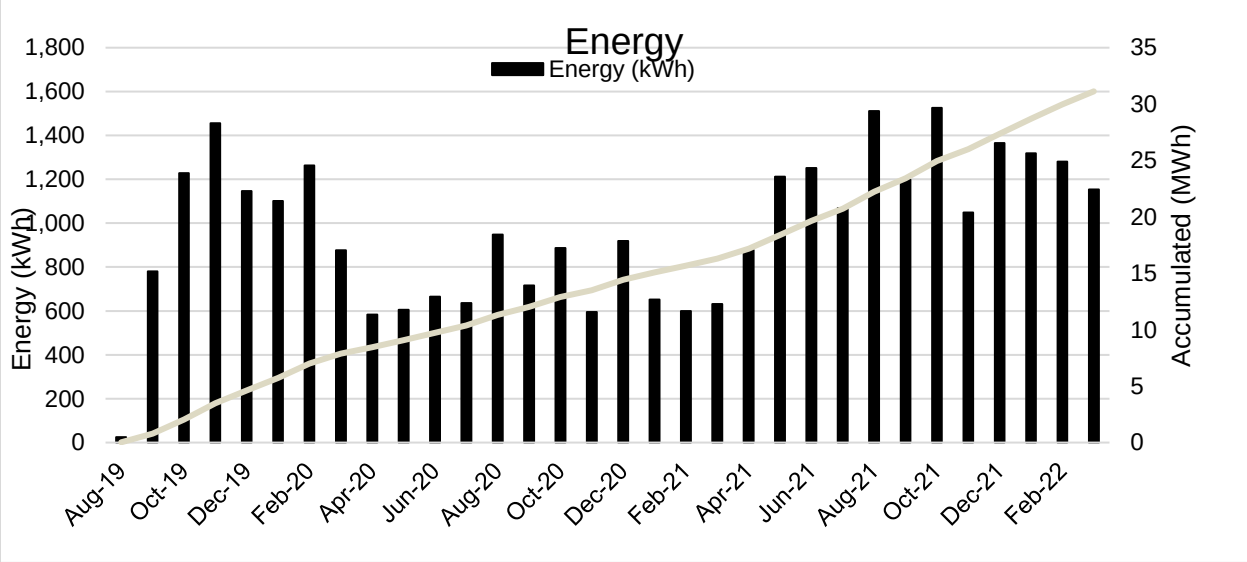

Figure 8c: Energy Usage per Month Since Aug 2019.

2.3. Summary of Economic and Environmental Analysis (Commercial and Utility/ Residential)

Commercial

A summary of the commercial economic and environmental benefits for the month of March 2022 is shown in Table 6. Table 7 provides the total savings for each participating station since the start of data collection in Jan 2013. The difference in the amount saved for each participating member and/or charging station location is due to the number of EVs, CNGs, charging stations and activation dates. Data with "( )" savings indicate no savings. Only CO_2 data from CNG are used in the report. Furthermore, CNG data collection is stopped in 2018 due to the scarcity of the data usage.

Table 8, Table 9, Table 10, Table 11, and Table 12 show the grant cycle phase I, II, III, IV, and V benefits for the participating members respectively. Table 14 shows the benefits for the remaining existing charging stations.

Overall Savings

Table 13 shows the combined commercial and residential savings for Phases I-V. Table 15 shows the benefits for both DC and the commercial level-2 charging stations.

Table 6: Economic and Environmental Benefits for all Participating Stations for the Month of March 2022.

Charging Station Location	Number of Charging stations/(Ports)	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO_2	CO	SO_2	NOx	CH_4	VOC
Allen Schools	1 / (2)	24	299	$199	735	7.43	(0.44)	0.00	(0.00)	0.45
Auburn Board od Public Works	3 / (5)	32	340.678	$218	328	7.98	0.01	(0.06)	(0.07)	0.51
Aurora	2 / (3)	11	216.60	$146	532	5.37	(0.32)	0.00	(0.00)	0.32
Ashland	2 / (3)	28	464	$300	590	10.98	(1.32)	(0.19)	(0.07)	0.68
Bellevue	1 / (2)	0	0	$0	0	0.00	0.00	0.00	0.00	0.00
B & R Stores	6 / (9)	115	1,100	$720	355	26.04	(3.51)	(2.32)	(0.23)	1.61
Central City	1 / (2)		0.00	$0	0	0.00	0.00	0.00	0.00	0.00
Central Community College	4 / (8)	81	498.49	$335	1,224	12.36	(0.74)	0.01	(0.00)	0.74
Dakota County	1 / (2)	17	280	$184	688	6.95	(0.41)	0.00	(0.00)	0.42
Ferguson House, Lincoln office of NCEA	1 / (2)	18	331	$222	145	8.08	(0.34)	(2.82)	(0.02)	0.49
Fremont	2 / (4)	49	686	$437	1,445	16.31	(1.21)	0.00	(0.08)	1.01
Gothenburg	-		0.00	$0	0	0.00	0.00	0.00	0.00	0.00
Gretna	3 / (5)	83	1,266	$813	1,609	29.93	(3.59)	(0.51)	(0.18)	1.87
Hastings	1 / (2)	2	32	$21	10	0.76	(0.10)	(0.07)	(0.01)	0.05
Holdrege	1 / (2)	5	39.101	$24	96	0.97	(0.06)	0.00	(0.00)	0.06
Kearney	5 / (8)	123	2,095	$1,420	5,144	51.96	(3.10)	0.03	(0.02)	3.11
LES	14 / (16)	141	2,339	$1,561	1,023	57.15	(2.41)	(19.96)	(0.12)	3.44
Lexington	2 / (4)	22	485	$299	1,191	12.03	(0.72)	0.01	(0.00)	0.72
Lincoln	15 / (30)	338	3,851	$2,575	1,684	94.10	(3.96)	(32.86)	(0.20)	5.67
Lincoln Public Schools	7 / (7)	91	678	$451	296	16.56	(0.70)	(5.78)	(0.03)	1.00
MCC	8 / (15)	244	3,357	$2,171	4,266	79.36	(9.53)	(1.36)	(0.48)	4.95
Nebraska City	4 / (6)	94	1,229	$773	1,184	28.80	0.02	(0.22)	(0.24)	1.83
Norfolk	1 / (2)	2	21	$5	27	0.49	(0.07)	(0.01)	(0.00)	0.03
Nebraska Safety Center at UNK	1 / (2)	4	34.759	$23	85	0.86	(0.05)	0.00	(0.00)	0.05
NP Dodge	2 / (3)	15	20.63	$13	26	0.49	(0.06)	(0.01)	(0.00)	0.03
NPPD	13 / (23)	163	2,252.19	$1,509	985	55.03	(2.32)	(19.21)	(0.12)	3.31
Minden	1 / (2)	25	216.66	$139	532	5.37	(0.32)	0.00	(0.00)	0.32
OPPD	3 / (6)	16	208	$129	264	4.92	(0.59)	(0.08)	(0.03)	0.31
City of Omaha	20 / (38)	361	4,738	$3,045	11,632	117.50	(7.01)	0.06	(0.05)	7.04
Omaha Zoological Society	2 / (4)	49	317.918	$207	404	7.52	(0.90)	(0.13)	(0.05)	0.47
Papio-Missouri NRD	1 / (2)	44	600	$389	762	14.17	(1.70)	(0.24)	(0.09)	0.88
Seward	4 / (7)	11	249	$155	612	6.18	(0.37)	0.00	(0.00)	0.37
South Sioux City	6 / (11)	81	979	$627	2,403	24.28	(1.45)	0.01	(0.01)	1.46
UNMC	2 / (4)	51	374.938	$243	476	8.86	(1.06)	(0.15)	(0.05)	0.55
UNO	4 / (8)	104	1,018	$653	1,293	24.06	(2.89)	(0.41)	(0.15)	1.50
Valley	1 / (2)	3	15	$10	19	0.35	(0.04)	(0.01)	(0.00)	0.02
Wayne	1 / (2)	0	0	$0	0	0.00	0.00	0.00	0.00	0.00
Total	146 / (253)	2,447	30,632	$20,015	42,065	743.21	(51.26)	(86.27)	(2.30)	45.27

Table 7: Cumulative Charging Infrastructure Usage and Benefits for all Participating Charging stations since Jan` 2013.

Charging Station Location	Number of Charging stations/(Ports)	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO_2	CO	SO_2	NOx	CH_4	VOC
Allen Schools	1 / (2)	1,292	13,612	$5,155	26,168	511.01	(30.83)	(6.06)	1.27	18.48
Auburn Board of Public Works	3 / (5)	848	5,840	$2,527	10,307	123.36	(6.33)	2.23	(0.39)	7.53
Aurora	2 / (3)	306	1,910	$900	2,785	41.06	(4.64)	(5.58)	(0.11)	2.48
Ashland	2 / (3)	1,257	12,905	$4,770	16,551	286.63	(40.35)	(14.80)	(0.20)	16.12
Bellevue	1 / (2)	1,295	12,080	$3,959	25,594	571.21	(33.69)	18.47	1.87	16.91
B & R Stores	6 / (9)	1,057	10,679	$5,165	4,663	223.40	(29.15)	(17.77)	(2.38)	13.87
Central City	1 / (2)	33	522	$163	1,264	31.44	(1.18)	1.59	0.13	0.78
Central Community College	4 / (8)	615	3,750	$1,810	5,310	80.10	(9.27)	(11.42)	(0.22)	4.83
Dakota County	1 / (2)	492	6,573	$2,673	10,647	175.38	(16.08)	(13.77)	0.06	8.56
Ferguson House, Lincoln office of NCEA	1 / (2)	719	6,693	$2,743	9,769	218.04	(7.71)	(16.67)	0.51	8.92
Fremont	2 / (4)	1,841	28,087	$10,797	34,800	558.45	(66.88)	(24.82)	(4.38)	35.16
Gothenburg	-		0	$720	6,020	155.11	(5.30)	8.68	0.64	3.56
Gretna	3 / (5)	3,144	31,232	$12,545	37,509	733.75	(89.00)	(30.76)	(1.75)	35.47
Hastings	1 / (2)	168	1,529	$617	1,232	35.88	(3.99)	(0.77)	(0.06)	1.93
Holdrege	1 / (2)	162	1,559	$641	2,519	43.55	(3.74)	(2.84)	0.03	2.04
Kearney	5 / (8)	3,325	31,675	$13,289	50,221	788.86	(75.23)	(68.49)	0.35	40.83
LES	14 / (16)	2,901	47,588	$19,687	55,379	1,209.85	(34.88)	(209.60)	2.09	61.21
Lexington	2 / (4)	1,112	13,052	$4,737	21,826	385.30	(31.26)	(20.92)	0.55	17.07
Lincoln	15 / (30)	9,639	102,434	$42,778	114,165	2,358.73	(77.37)	(455.29)	4.58	128.74
Lincoln Public Schools	7 / (7)	1,097	8,086	$3,831	10,445	171.85	(7.15)	(13.17)	(0.30)	10.35
MCC	8 / (15)	3,357	36,333	$15,618	43,629	751.81	(110.48)	(45.36)	(2.67)	46.39
Nebraska City	4 / (6)	2,809	29,140	$12,737	63,475	894.58	(43.29)	30.55	0.96	38.92
Norfolk	1 / (2)	77	893	$321	1,457	19.51	(1.75)	(12.65)	(0.02)	1.15
Nebraska Safety Center at UNK	1 / (2)	54	284	$118	407	5.92	(0.70)	(0.87)	(0.01)	0.36
NP Dodge	2 / (3)	178	3,233	$1,134	3,681	64.70	(9.68)	(4.70)	(0.22)	3.98
NPPD	13 / (23)	2,217	28,766	$12,952	36,674	613.17	(25.50)	(50.76)	(1.08)	36.92
Minden	1 / (2)	128	910	$462	1,631	20.57	(1.92)	(1.76)	(0.04)	1.24
OPPD	3 / (6)	5,063	29,039	$9,835	55,364	1,209.12	(85.77)	27.83	3.42	39.82
City of Omaha	20 / (38)	2,484	28,780	$13,808	47,117	632.62	(65.14)	(69.33)	(1.25)	38.14
Omaha Zoological Society	2 / (4)	864	6,985	$2,978	7,426	143.49	(19.48)	(9.15)	(0.67)	8.82
Papio-Missouri NRD	1 / (2)	2,766	26,918	$10,674	32,720	541.21	(84.31)	(38.16)	(1.59)	33.36
Seward	4 / (7)	1,066	15,072	$5,296	26,323	490.06	(35.76)	(16.49)	1.04	19.93
South Sioux City	6 / (11)	4,128	51,658	$18,701	90,315	1,674.13	(123.07)	(49.81)	3.52	68.18
UNMC	2 / (4)	712	6,530	$2,805	7,036	134.94	(18.30)	(8.31)	(0.63)	8.30
UNO	4 / (8)	3,617	31,386	$12,310	37,911	637.34	(97.80)	(41.98)	(1.76)	27.90
Valley	1 / (2)	262	2,027	$717	3,173	63.57	(6.15)	(0.30)	0.10	2.65
Wayne	1 / (2)	164	2,262	$1,889	8,787	64.17	(5.13)	(39.86)	0.25	2.85
Total	146 / (253)	61,249	640,020	$261,865	914,300	16,663.85	(1,308.26)	(1,212.85)	1.64	813.76

Table 8: Cumulative Economic and Environmental Benefits for Phase I Participants.

Participating Members	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
		CO2	CO	SO2	NOx	CH4	VOC
Bellevue	$3,959	25,594	571.21	(33.69)	18.47	1.87	16.91
Central City	$163	1,264	31.44	(1.18)	1.59	0.13	0.78
Ferguson House, Lincoln office of NCEA	$2,743	9,769	218.04	(7.71)	(16.67)	0.51	8.92
Gothenburg	$720	6,020	155.11	(5.30)	8.68	0.64	3.56
Holdrege	$641	2,519	43.55	(3.74)	(2.84)	0.03	2.04
Lexington	$4,737	21,826	385.30	(31.26)	(20.92)	0.55	17.07
Nebraska City	$10,540	50,968	770.00	(39.01)	23.62	0.45	36.08
Seward	$1,008	4,232	49.41	(4.68)	(4.19)	0.02	2.99
South Sioux City	$1,297	5,007	70.11	(8.30)	(10.20)	(0.05)	4.25
Wayne*	$1,149	5,100	-	-	-	-	-
Total	$26,956	132,298	2,294.17	(134.86)	(2.46)	4.15	92.60

Table 9: Total Economic and Environmental Benefits for Phase II Participants.

Participating Members	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
		CO2	CO	SO2	Nox	CH4	VOC
Allen Consolidated Schools	$5,155	26,168	511.01	(30.83)	(6.06)	1.27	18.48
Ashland	$4,770	16,551	286.63	(40.35)	(14.80)	(0.20)	16.12
Dakota County	$2,673	10,647	175.38	(16.08)	(13.77)	0.06	8.56
Gretna	$3,808	15,572	308.77	(31.86)	(4.69)	0.28	9.32
Hastings	$617	1,232	35.88	(3.99)	(0.77)	(0.06)	1.93
Kearney	$9,315	37,073	614.81	(57.85)	(50.73)	0.71	30.35
Lincoln	$42,292	113,205	2,338.17	(76.51)	(451.88)	4.61	127.50
Nebraska City*	$1,678	7,565	-	-	-	-	-
OPPD	$9,835	55,364	1,209.12	(85.77)	27.83	3.42	39.82
UNO	$2,838	8,029	137.71	(20.53)	(8.91)	(0.48)	5.02
Valley	$717	3,173	63.57	(6.15)	(0.30)	0.10	2.65
Total	$83,699	294,581	5,681.06	(369.91)	(524.07)	9.71	259.74

*Data shown is for one CNG in Phase I, and two CNGs in Phase II.

Table 10: Total Economic and Environmental Benefits for Phase III Participants.

Participating Members	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
		CO2	CO	SO2	Nox	CH4	VOC
Fremont	$10,797	34,800	558.45	(66.88)	(24.82)	(4.38)	35.16
MCC	$2,127	5,470	101.71	(14.29)	(6.66)	(0.43)	6.26
Total	$12,924	40,270	660.17	(81.17)	(31.48)	(4.81)	41.41

Table 11: Total Economic and Environmental Benefits for Phase IV Participants.

Participating Members	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
		CO2	CO	SO2	Nox	CH4	VOC
Auburn Board of Public Works	$801	3,537.99	42.36	(2.33)	0.74	(0.09)	2.59
Aurora (DC)	$789	2,429.76	35.84	(4.06)	(4.87)	(0.09)	2.16
City of Omaha	$4,534	14,815.12	230.02	(28.18)	(36.50)	(0.54)	13.91
Nebraska Safety Center at UNK	$118	407.24	5.92	(0.70)	(0.70)	(0.01)	0.36
NP Dodge	$99	250.38	5.22	(0.68)	(0.36)	(0.03)	0.32
Omaha Zoological Society	$2,978	7,426.20	143.49	(19.48)	(9.15)	(0.67)	8.82
University of Nebraska Medical Center	$2,805	7,035.75	134.94	(18.30)	(8.31)	(0.63)	8.30
Gretna (DC)	$8,737	21,936.25	424.98	(57.15)	(26.07)	(2.02)	26.15
Kearney	$3,974	13,148.26	174.05	(17.38)	(17.76)	(0.36)	10.48
Total	$24,835	70,986.94	1,196.81	(148.24)	(102.99)	(4.45)	73.10

Table 12: Total Economic and Environmental Benefits for Phase V Participants.

Participating Members	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
		CO2	CO	SO2	Nox	CH4	VOC
Auburn Board of Public Works	$1,727	6,769.45	81.00	(4.00)	1.50	(0.30)	4.94
Aurora	$111	355.40	5.22	(0.59)	(0.70)	(0.01)	0.32
Central Community College	$1,810	5,309.75	80.10	(9.27)	(11.42)	(0.22)	4.83
Minden	$462	1,630.71	20.57	(1.92)	(1.76)	(0.04)	1.24
NPPD	$12,952	36,674.05	613.17	(25.50)	(50.76)	(1.08)	36.92
Norfolk	321.21	1,456.68	19.51	(1.75)	(12.65)	(0.02)	1.15
Lincoln	485.86	959.72	20.56	(0.86)	(3.42)	(0.04)	1.24
Total	$17,869	53,156	840	(44)	(79)	(2)	51

Table 13: Total Economic and Environmental Benefits for Participating Members in all six grants.

	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
		CO2	CO	SO2	NOx	CH4	VOC
Savings Excluding Residential Rebate Program	$166,283	591,291	10,672	(778.09)	(740.22)	(6.72)	517.50
OPPD_ Residential Rebate Program Savings	$1,121,103	3,249,373	56,924	(8,389.05)	(3,557.21)	(205.22)	3,506.89
NPPD_ Residential Rebate Program Savings	$124,630	309,817	5,726	(218.16)	(793.25)	(6.81)	343.78
Fremont_ Residential Rebate Program Savings	$11,859	39,324	620	(72.66)	(25.66)	(4.77)	38.95
Total Saving	$1,423,875	4,189,805	73,942	(9,457.96)	(5,116.34)	(223.52)	4,407

Table 14: Total Economic and Environmental Benefits for Remaining Existing Charging Stations.

Participating Members	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
		CO2	CO	SO2	NOx	CH4	VOC
B & R Stores	$5,165	4,663	223.40	(29.15)	(17.77)	(2.38)	13.87
City of Omaha	$9,274	32,302	402.60	(36.96)	(32.83)	(0.71)	24.23
LES	$19,687	55,379	1,209.85	(34.88)	(209.60)	2.09	61.21
Lincoln Public Schools	$3,831	10,445	171.85	(7.15)	(13.17)	(0.30)	10.35
MCC	$13,492	38,159	650.09	(96.19)	(38.69)	(2.24)	40.13
Nebraska City	$519	4,942	124.58	(4.28)	6.93	0.51	2.85
NP Dodge	$1,036	3,430	59.49	(9.00)	(4.34)	(0.20)	3.66
Papio-Missouri NRD	$10,674	32,720	541.21	(84.31)	(38.16)	(1.59)	33.36
Seward	$4,288	22,092	440.65	(31.08)	(12.30)	1.01	16.95
South Sioux City	$17,404	85,308	1,604.02	(114.77)	(39.61)	3.57	63.93
UNO	$9,472	29,882	499.62	(77.27)	(33.07)	(1.27)	22.88
Wayne	$740	3,687	64.17	(5.13)	(39.86)	0.25	2.85
Total	$95,582	323,009	5991.52	(530.17)	(472.47)	(1.25)	296.26

Table 15: Analysis for DC Fast Chargers and all Level 2 Charging Stations.

Commercial Charging Station Type	Number of Charging Ports	Number of Charging Sessions	Energy Usage (kWh)	Economic Benefits	Environmental Benefits (Emission Reductions) (lbs.)					
					CO2	CO	SO2	NOx	CH4	VOC
Level 2 Charger	239	57,720	580,335	$234,908	846,722	15,385.76	(1,164.32)	(1,115.46)	7.05	746.46
DC Fast Charger	14	3529	59,684	$26,957	67,577	1,278.09	(143.94)	(97.39)	(5.4093)	67.2997
Total	253	61,249	640,020	$261,865	914,300	16,663.85	(1,308.26)	(1,212.85)	1.64	813.76

3. Appendix A: Detailed Economic Analysis - Commercial

3.1. Introduction

The following five types of vehicles are investigated in this report:

- CV – Conventional vehicles running on gasoline fuel.
- DV – Conventional vehicles running on diesel fuel.
- CNG – Trucks running on compressed natural gas (CNG) fuel.
- Ethanol (E85) - Conventional vehicles running on Ethanol (E85) fuel.
- EV – Electric Vehicles (all electric) running on electricity.

3.2.Economic Benefits due to Fuel Type Price Differences

Data calculations are based on the following average prices and assumptions:

- Gas price of $2.885 per gallon (Regular unleaded, based on 2021 monthly Nebraska state average [1]).
- Diesel price of $3.079 per gallon (based on YTD Nebraska state average [2]).
- CNG price of $2.330 per gallon based on the current average filling station CNG rate for Nebraska. [3]
- Ethanol (E85) price of $2.40 per gallon based on 2020 monthly Nebraska state average [4].
- Electricity prices depend on the current rate charged by the electric utility provider serving the participating charging stations in this study. There are seven electric utility providers:
    - Fremont Utilities
    - City of Hastings Utilities
    - Lincoln Electric System (LES)
    - Nebraska City Utilities
    - Nebraska Public Power District (NPPD)
    - Omaha Public Power District (OPPD)
    - City of Wayne Electric Distribution System

OPPD serves Ashland, Bellevue, Gretna, and Valley [5]. NPPD serves Allen, Dakota County, Gothenburg, Holdrege, Lexington, Seward, South Sioux City, Wayne, and Auburn as a wholesale power supply; and Kearney as a retail provider [6]. LES serves Lincoln [7]. Fremont, Hastings and Nebraska City are unique as they provide their own power for their cities [8][9][10]. The city of Wayne receives 56% of its power from oil resource, and 44% from the renewable resource, mainly from wind [11][12].

Table A1 provides the name of the electric utility provider and the (commercial or retail) rate per kilowatt-hour for the participating members. Allen, Gothenburg, Holdrege, Lexington, Seward, and Wayne have their own utility rates, while Central City, Dakota County, Kearney, South Sioux City, and Auburn follow the rate schedule as specified by NPPD. To distinguish between the different rates, additional letters (‘a’ to ‘h’) have been added to NPPD listing.

Table A1: Electricity Providers and Rate Structure for the Participating Charging Stations.

Charging Station Location	Provider	Price per kWh ($)#
Allen Consolidated Schools [10]	NPPD - a	0.0690
Auburn Board of Public Works	NPPD-h	0.0941
Aurora	NPPD - b	0.0853
Ashland[11]	OPPD	0.0884
Bellevue[11]	OPPD	0.0884
B & R Stores	LES	0.0743
Central City[12]	NPPD - b	0.0853
Central Community College	NPPD - b	0.0853
Dakota County[12]	NPPD - b	0.0853
Ferguson House (Lincoln)[13]	LES	0.0743
Fremont	Provides own service	0.0985
Gothenburg [14]	NPPD - c	0.0801
Gretna[11]	OPPD	0.0884
Hastings[15]	Provides own service	0.0893
Holdrege [16]	NPPD - d	0.0940
Kearney[12]	NPPD - b	0.0853
LES	LES	0.0743
Lexington [17]	NPPD - e	0.1139
Lincoln[13]	LES	0.0743
MCC	OPPD	0.0884
Nebraska City [18]	Provides own service	0.1064
Nebraska Safety Center at UNK	NPPD - b	0.0853
OPPD[11]	OPPD	0.0884
City of Omaha	OPPD	0.0884
Omaha Zoological Society	OPPD	0.0884
Papio-Missouri NRD	OPPD	0.0884
Seward [19]	NPPD - f	0.0980
South Sioux City[12]	NPPD - b	0.0884

UNMC	OPPD	0.0884
UNO	OPPD	0.0884
Valley[11]	OPPD	0.0884
Wayne [20]	NPPD - g	0.1169
Average		0.0884
#All rates are the average of the base summer and winter rates.		

Table A2 shows the fuel economy of the different vehicle types and the cost for driving one mile. The cost of fuel for the EV vehicle is based on the price per kWh, for each participating member, calculated by averaging the summer and winter rates.

The following fuel economy values are used:

- CV and DV vehicles: 25.70 mpg and 29.32 mpg respectively, Average fuel economy for the model year 2020 = 25.70 mpg [26][27]
- CNG vehicle: 25.70 mpg, based on the same fuel economy of a CV because it is roughly equal to that of a CV when converted to gasoline gallons equivalent (GGE) [28].
- EV vehicle: 4.03 miles per kWh, based on the combined fuel economy average (city and highway) of all the vehicle types (make and model) published in the Fuel Economy Guide for the year 2020 [29].
- Ethanol (E85): 18.33 mpg based on [30].
- The national driving average is 11,556 miles based on [31].

Table A2: Cost of Driving one Mile for the Five Vehicle Types (Arranged in Descending Order).

Vehicle Type		Cost of Fuel	Combined Fuel Economy	Cost per mile
Gasoline Vehicles (CV)		$2.885	25.7	$0.112
Diesel Vehicles (DV)		$3.079	29.32	$0.105
Compressed Natural Gas Vehicles (CNG)		$2.330	25.7	$0.091
Ethanol Vehicles (E-85)		$2.403	18.33	$0.131
EV	Lexington (NPPD – e)	$0.114	4.03 miles per kWh	$0.028
	Wayne (NPPD – g)	$0.117		$0.029
	Nebraska City	$0.106		$0.026
	Fremont	$0.099		$0.024
	Seward (NPPD – f)	$0.098		$0.024
	Holdrege (NPPD – d)	$0.094		$0.023
	Auburn Board of Public Works (NPPD – h)	$0.069		$0.017
	Ashland, Bellevue, Gretna, MCC, OPPD, UNO, Valley (OPPD)	$0.088		$0.022

	Central City, Dakota County, Kearney, South Sioux City (NPPD – b)	$0.080		$0.020
	Allen (NPPD – a)	$0.085		$0.021
	Gothenburg (NPPD – c)	$0.089		$0.022
	Hastings	$0.094		$0.023
	Ferguson House, LES, Lincoln (LES)	$0.074		$0.018

Table A3 and Table A4 show the cost savings when comparing between the five types of vehicles. The calculations shown are for driving one mile (Table A3) and then for driving an average of 11,556 miles [31] annually (Table A4). The red shading represents no savings (negative savings) and the green shading represents positive savings. Figure A1 provides a visual representation of Table A4.

Table A3: Cost Savings per Mile in Terms of Fuel Consumption (Arranged in Ascending Order).

Vehicle Type		Savings per mile			
		Compared to CV	Compared to DV	Compared to CNG	Compared to E85
Gasoline Vehicles (CV)		-	-$0.007	-$0.022	$0.053
Diesel Vehicles (DV)		$0.007	-	-$0.014	$0.061
Compressed Natural Gas Vehicles (CNG)		$0.022	$0.014	-	$0.075
Ethanol Vehicles (E-85)		-$0.019	-$0.026	-$0.041	-
EV	$0.084	$0.077	$0.062	$0.137	$82.09
	$0.083	$0.076	$0.062	$0.137	$160.32
	$0.086	$0.079	$0.064	$0.139	$189.10
	$0.088	$0.081	$0.066	$0.141	$222.63
	$0.088	$0.081	$0.066	$0.141	$224.32
	$0.089	$0.082	$0.067	$0.142	$226.01
	$0.095	$0.088	$0.074	$0.149	$237.53
	$0.090	$0.083	$0.069	$0.144	$267.33
	$0.092	$0.085	$0.071	$0.146	$268.34
	$0.091	$0.084	$0.069	$0.145	$279.52
	$0.090	$0.083	$0.069	$0.144	$284.94
	$0.089	$0.082	$0.067	$0.142	$291.03
	$0.094	$0.087	$0.072	$0.147	$299.84

Table A4: Estimated Annual Cost Savings in Terms of Fuel Consumption (Arranged in Ascending Order).

Vehicle Type		Estimated Annual Savings			
		Compared to CV	Compared to DV	Compared to CNG	Compared to E85
Gasoline Vehicles (CV)		-	-$83.64	-$249.56	$220.41
Diesel Vehicles (DV)		$83.64	-	-$165.92	$304.04
Compressed Natural Gas Vehicles (CNG)		$249.56	$165.92	-	$469.96
Ethanol Vehicles (E-85)		-$220.41	-$304.04	-$469.96	-
EV	NPPD - e	$970.78	$887.14	$721.22	$1,191.18
	NPPD - g	$962.03	$878.39	$712.47	$1,182.44
	Nebraska City	$992.14	$908.50	$742.58	$1,212.54
	Fremont	$1,014.79	$931.16	$765.24	$1,235.20
	NPPD - f	$1,016.23	$932.59	$766.67	$1,236.63
	NPPD - d	$1,027.70	$944.06	$778.14	$1,248.10
	NPPD - a	$1,099.35	$1,015.72	$849.80	$1,319.76
	OPPD	$1,043.90	$960.26	$794.34	$1,264.30
	NPPD - c	$1,067.55	$983.92	$818.00	$1,287.96
	NPPD - b	$1,052.64	$969.01	$803.09	$1,273.05
	Hastings	$1,041.17	$957.54	$791.62	$1,261.58
	NPPD-h	$1,027.41	$943.77	$777.85	$1,247.81
	LES	$1,084.18	$1,000.55	$834.63	$1,304.59

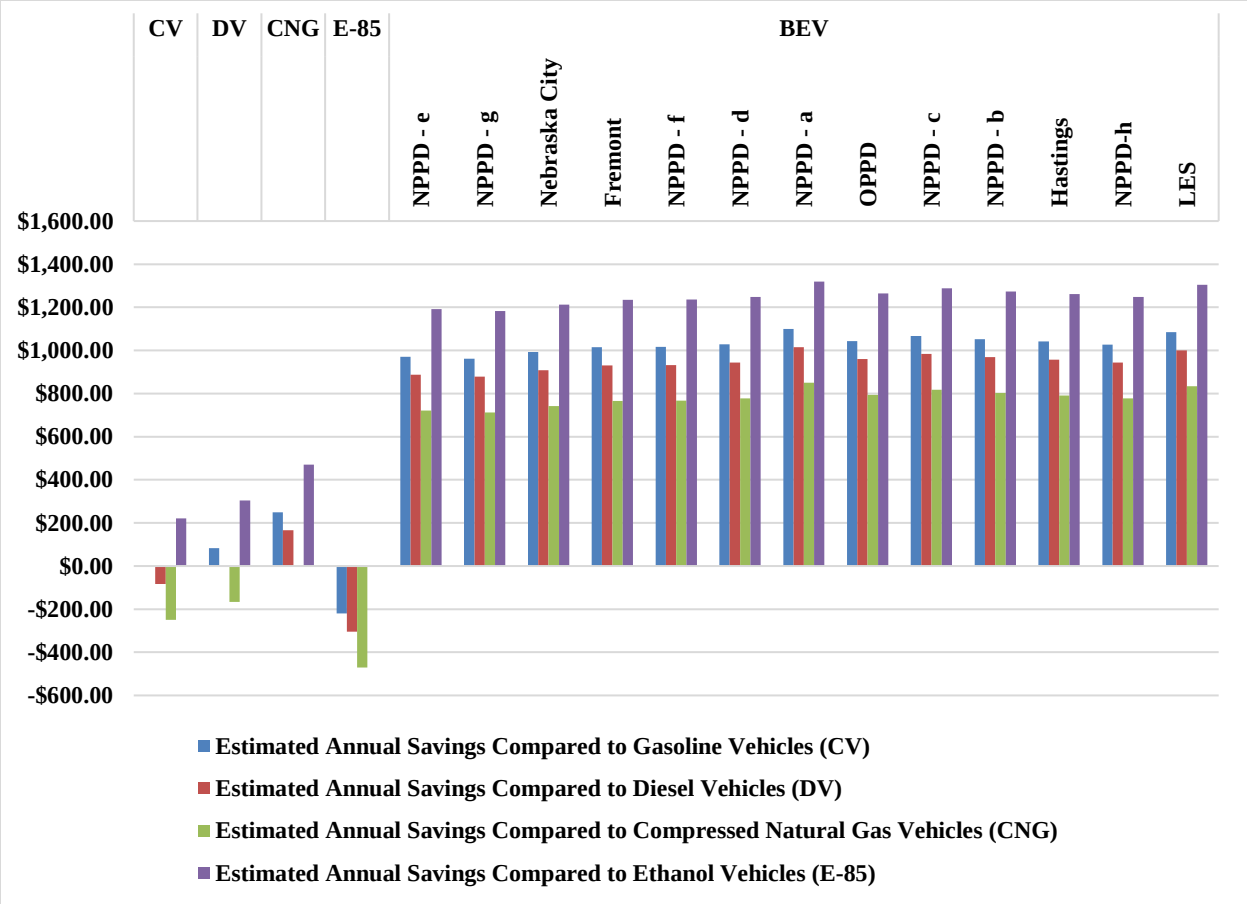

Figure A1. Estimated Annual Cost Savings in Terms of Fuel Consumption Arranged in Ascending Order.

Table A5 shows the cost savings in terms of varying fuel (gasoline, diesel, CNG, and Ethanol) prices. This analysis is performed on a price range of $1.50 to $4.00 in 50 cent increments. The cost per kWh considered is the average of the kWh prices shown in Table A1 ($0.08904 per kWh). The results for CNG and Gasoline fuel will be the same as their fuel economy is equal in terms of GGE [29]. Figure A2 provides a visual representation of Table A5.

Table A5: Estimated Annual Cost Savings When Using an EV Against Varying Fuel Prices.

Cost of Fuel	Estimated Annual Savings in Fuel Cost when using a EV		
	Compared to CV & CNG	Compared to DV	Compared to E85
$1.50	$418.93	$335.65	$691.66
$2.00	$643.75	$532.72	$1,007.40
$2.50	$868.58	$729.79	$1,323.14
$3.00	$1,093.40	$926.85	$1,638.88
$3.50	$1,318.23	$1,123.92	$1,954.61
$4.00	$1,543.05	$1,320.99	$2,270.35

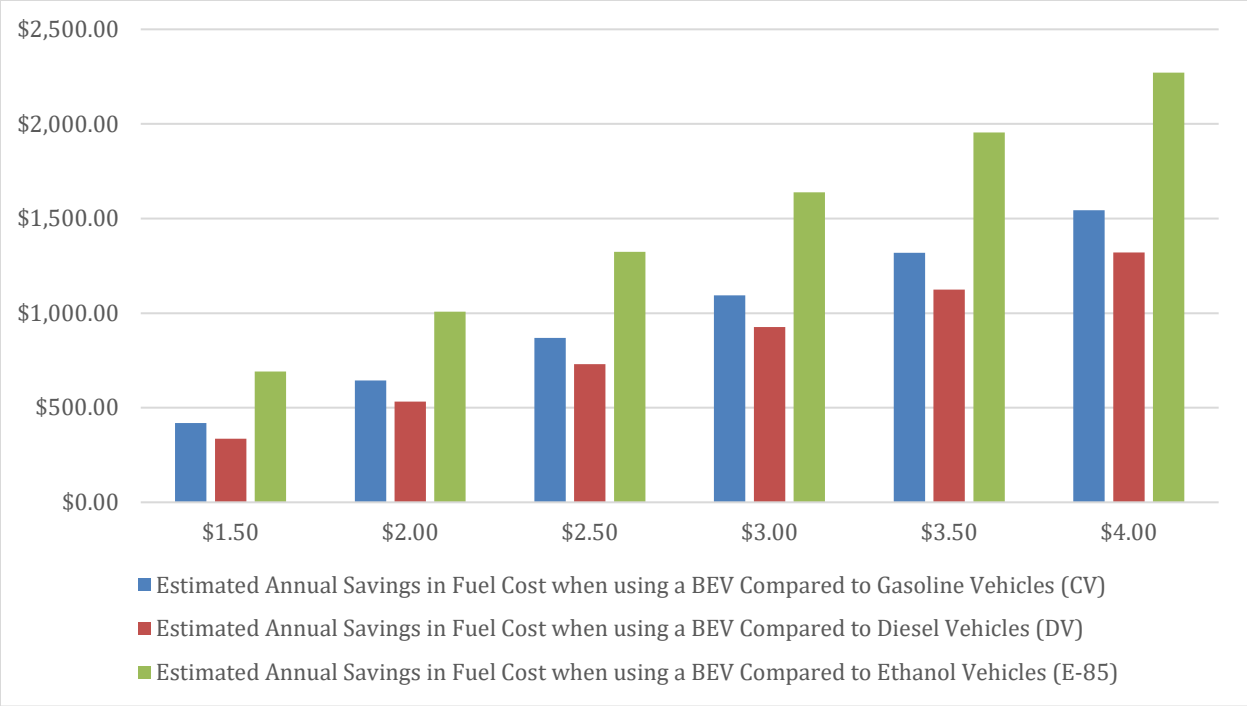

Figure A2: Estimated Annual Cost Savings When Using an EV Against Varying Fuel Prices.

3.3. Economic Benefits due to Other Factors Affecting Each Fuel Type

In addition to the fuel savings, additional cost savings for EVs are attributed to vehicle maintenance requirements. Table A6 shows the average maintenance cost for each type of vehicle and calculates the yearly savings for the DV and EV over the CV.

Table A6: Estimated Maintenance Costs and Savings for a Given Year.

	Gasoline Vehicles (CV)	Diesel Vehicles (DV)	Ethanol Vehicles (E-85)	Electric Vehicles (EV)
Maintenance Cost per mile	$0.0610	$0.0610	$0.0610	$0.0260
Estimated Annual Maintenance Cost	$705.77	$705.77	$705.77	$300.82
Savings over CV per year	-	$0.00	$0.00	$404.95

3.4.Total Economic Benefits

Table A7 and Figure A3 show the total combined fuel and maintenance cost savings for the three types of vehicles (CV, DV, and EV) arranged in ascending order. The red shading represents no savings (negative savings) and the green shading represents positive savings. Conventional vehicle maintenance cost is $0.061 per mile; maintenance cost for EV is $0.026 per mile based on 2018 data found in [32].

Table A7: Estimated Total Annual Cost Savings Arranged in Ascending Order

		Total Cost Per Mile	Total Savings per Mile			Estimated Total Annual Cost Savings		
			Over CV	Over DV	E85	Over CV	Over DV	E85
Gasoline Vehicles (CV)		$0.1733	-	-$0.0072	-$0.0216	-	-$83.64	-$249.56
Diesel Vehicles (DV)		$0.1660	$0.007	-	-$0.0144	$83.64	-	-$165.92
Ethanol Vehicles (E-85)		$0.1517	$0.022	$0.0144		$249.56	$165.92	-
EV	Lexington (NPPD – e)	$0.0543	$0.119	$0.1118	$0.0974	$1,375.24	$1,291.60	$1,125.68
	Wayne (NPPD – g)	$0.0550	$0.118	$0.1110	$0.0967	$1,366.49	$1,282.85	$1,116.93
	Nebraska City	$0.0524	$0.121	$0.1136	$0.0993	$1,396.60	$1,312.96	$1,147.04
	Fremont	$0.0504	$0.123	$0.1156	$0.1012	$1,419.25	$1,335.62	$1,169.70
	Seward (NPPD – f)	$0.0503	$0.123	$0.1157	$0.1013	$1,420.69	$1,337.05	$1,171.13
	Holdrege (NPPD – d)	$0.0493	$0.124	$0.1167	$0.1023	$1,432.16	$1,348.52	$1,182.60
	Auburn Board of Public Works (NPPD – h)	$0.0431	$0.130	$0.1229	$0.1085	$1,503.81	$1,420.18	$1,254.26
	Central City, Dakota County, Kearney, South Sioux City (NPPD – b)	$0.0479	$0.125	$0.1181	$0.1037	$1,448.36	$1,364.72	$1,198.80
	Ashland, Bellevue, Gretna, MCC, OPPD, UNO, Valley (OPPD)	$0.0459	$0.127	$0.1201	$0.1058	$1,472.01	$1,388.38	$1,222.46
	Allen (NPPD – a)	$0.0472	$0.126	$0.1189	$0.1045	$1,457.10	$1,373.47	$1,207.55
	Gothenburg (NPPD – c)	$0.0482	$0.125	$0.1179	$0.1035	$1,445.63	$1,362.00	$1,196.08
	Hastings	$0.0493	$0.124	$0.1167	$0.1023	$1,431.87	$1,348.23	$1,182.31
	Ferguson House, LES, Lincoln (LES)	$0.0444	$0.129	$0.1216	$0.1072	$1,488.64	$1,405.01	$1,239.09

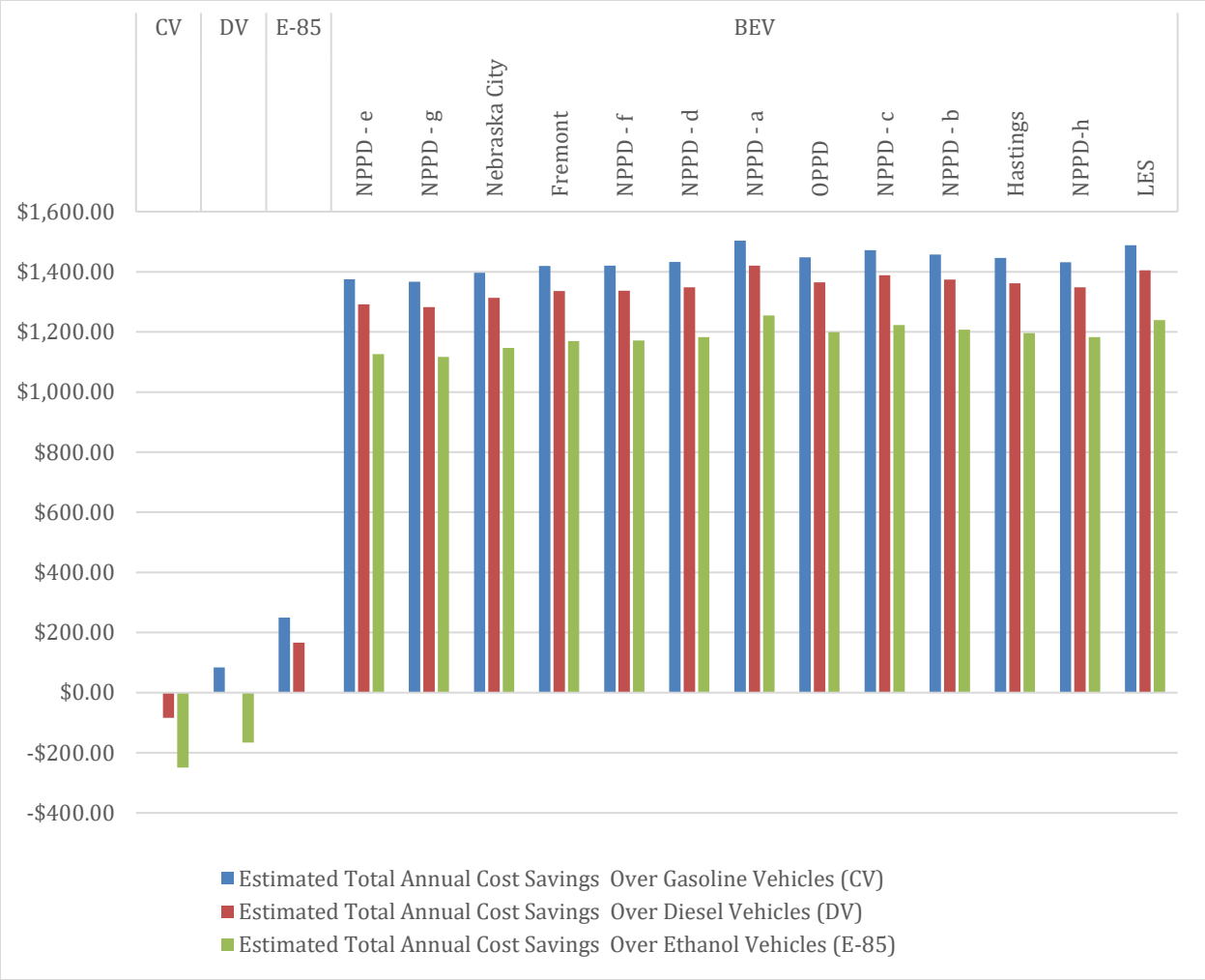

Figure A3: Estimated Total Annual Cost Savings When Using an EV Over a CV, DV, and E-85.

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4. Appendix B: Detailed Economic Analysis – Utility/Residential

4.1. Introduction

The following two types of vehicles are investigated in this report:

- CV – Conventional vehicles running on gasoline fuel.
- EV – Electric Vehicles (all electric) running on electricity.

4.2. Economic Benefits due to Fuel Type Price Differences

Data calculations are based on the following average prices and assumptions:

- Gas price of $2.89 per gallon (Regular unleaded, based on 2021 monthly Nebraska state average [1]).
- Electricity prices depend on the current rate charged by the electric utility provider serving the participating members in this study. The electric utility provider is
    - Omaha Public Power District (OPPD)

Table B1 shows the fuel economy of the different vehicle types and the cost for driving one mile. The cost of fuel for the EV vehicle is based on the price per kWh calculated by averaging the summer and winter rates.

The following fuel economy values are used:

- CV vehicles: 25.70 mpg, Average fuel economy for the model year 2020 = 25.7 mpg [2].
- EV vehicle: 4.03 miles per kWh , based on the combined fuel economy average (city and highway) of all the vehicle types (make and model) published in the Fuel Economy Guide for the year 2020 [3].

Table B1: Cost of Driving One Mile for Both Vehicle Types.

Vehicle Type		Cost of Fuel	Combined Fuel Economy	Cost per mile
Gasoline Vehicles (CV)		$2.89	25.7 mpg	$0.1124
Electric Vehicles (EV)	(OPPD)	$0.0884	4.03 miles per kWh	$0.0219

Table B2 shows the cost savings in terms of varying fuel prices. This analysis is performed on a price range of $1.50 to $4.00 in 50 cent increments. The cost per kWh considered is the average of the kWh prices for NCEA participating members ($0.08911 per kWh).

Table B 2: Estimated Annual Cost Savings When Using an EV Against Varying Fuel Prices.

Cost of Fuel	Estimated Annual Savings in Fuel Cost when using a EV Compared to a CV
$1.50	$418.93
$2.00	$643.75
$2.50	$868.58
$3.00	$1,093.40
$3.50	$1,318.23
$4.00	$1,543.05

4.3. Economic Benefits Due to Other Factors Effecting Each Fuel Type

In addition to the fuel savings, additional cost savings for EVs are attributed to vehicle maintenance requirements. Table B3 shows the average maintenance cost for each type of vehicle and calculates the yearly savings for EV over the CV. Conventional vehicle maintenance cost is $0.061 per mile; maintenance cost for EV is $0.026 per mile based on 2020 data found in [4].

Table B3: Estimated Maintenance Costs and Savings for a Given Year.

	Gasoline Vehicles (CV)	Electric Vehicles (EV)
Maintenance Cost per mile	$0.0610	$0.0260
Estimated Annual Maintenance Cost	$705.77	$300.82
Savings over CV per year	-	$404.95

4.4. Total Economic Benefits

Table B4 shows the total combined fuel and maintenance cost savings for the two types of vehicles.

Table B4: Estimated Total Annual Cost Savings.

		Total Cost Per Mile	Total Savings per mile		Estimated Total Annual Cost Savings
			Over CV	Over DV	Over CV
Gasoline Vehicles (CV)		$0.1733	-	-$0.0072	-
Electric Vehicles (EV)	(OPPD)	$0.0479	$0.125	$0.1181	$1,448.36

4.5. References

[1] Nebraska Government, "Average Monthly Retail Motor Gasoline Prices in Nebraska," *Nebraska's Monthly Motor Gasoline Prices*. [Online]. Available: http://www.neo.ne.gov/statshtml/97.htm#regular_unleaded. [Accessed: 21-Feb-2022].
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5. Appendix C: Detailed Environmental Emissions Data Analysis – Commercial and Utility/Residential

5.1. Introduction

The following five types of vehicles are investigated in this report:

- CV – Conventional vehicles running on gasoline fuel.
- DV – Conventional vehicles running on diesel fuel.
- CNG – Trucks running on compressed natural gas (CNG) fuel.
- Ethanol (E85)- Conventional vehicles running on Ethanol (E85) fuel.
- EV – Electric Vehicles (all electric) running on electricity.

With respect to Electric Vehicles (EVs), the calculations are based on how the electricity is generated (what primary energy sources are used in this production and their percentages). There are seven electric utility providers serving the participating members:

- Fremont Utilities
- City of Hastings Utilities
- Lincoln Electric System (LES)
- Nebraska City Utilities
- Nebraska Public Power District (NPPD)
- Omaha Public Power District (OPPD)
- City of Wayne Electric Distribution system

With respect to the utility/residential report the following two types of vehicles are investigated:

- CV – Conventional vehicles running on gasoline fuel.
- EV – Electric Vehicles (all electric) running on electricity.

With respect to Electric Vehicles (EVs), the calculations are based on how the electricity is generated (what primary energy sources are used in this production and their percentages). This resource mix is determined for each utilities using available information from the utilities and their respective Integrated Resource Plan (IRP).

The report looks into current primary energy sources in use for the generation of electricity by each electric utility provider. Emission from each utility is shown based on the resource mix, and the emissions data as per the eGRID 2020 tool published by the U.S. Environmental Protection Agency (EPA) [1]. eGRID provides a detailed information on the following:

- Emissions Profile: This covers nitrogen oxides (NO_X), sulfur dioxide (SO_2), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and mercury (Hg). (Hg emissions are available prior to year 2007).
- Generating plant identification and location information.

The current version of this tool, uploaded in Jan-2022, provides real-time emissions and generation data for 2020. Emission calculations considers all the generating resources for each resource category for each individual utility.

5.2. Greenhouse Gas Definitions

A greenhouse gas (GHG) is a gas that contributes to the greenhouse effect by infrared radiation produced by solar warming of the earth's surface. The following information provides a definition of each type of GHG emission and detailed analysis of how these GHG emissions are calculated along with supporting references.

5.2.1. Carbon Dioxide Equivalent (CO_2e)

The CO_2 equivalent gives a total emissions factor for the three most dominant greenhouse gasses, CO_2, CH_4, and N_2O. Each of the three gasses is multiplied by its global warming potential (GWP) shown below which accounts for the overall effect of each gas on global warming [2]. For example, CH_4 has a GWP of 25 which means that one gram of CH_4 has the same effect on global warming as 25 grams of CO_2 over a period of a hundred years. Certain gasses are more harmful in the short term or in the long term, so the 100-year value is usually used as a good average. The equation below shows the formula for calculating CO_2 equivalent emissions.

	100-year GWP value
Carbon Dioxide (CO_2)	1
Methane (CH_4)	25
Nitrous Oxide (N_2O)	298

$$CO_2e = 1*CO_2 \text{ emissions} + 25*CH_4 \text{ emissions} + 298*N_2O \text{ emissions}$$

Carbon Dioxide (CO_2)

Carbon dioxide is the most common greenhouse gas and makes up 81% of all GHG emissions [3]. The majority of CO_2 emissions come directly from electricity generation, transportation, and industry while a smaller fraction comes indirectly from deforestation, increased agriculture, and other activities that reduce the amount of natural land.

Methane (CH_4)

Methane is the second most common greenhouse gas at 10% of all emissions [3], and is also the main component of natural gas. When released into the atmosphere it reacts to form CH_3 and water vapor which is the most potent of greenhouse gasses. Methane is far worse in the short term with a 20-year GWP of 84. The long term GWP of methane is 28.

Nitrous Oxide (N_2O)

Nitrous oxide is the third most common greenhouse gas at 6% of all GHG emissions [3]. N_2O reacts with the air to produce nitric oxide (NO) which then reacts with the ozone layer. N_2O is extremely potent and has a GWP factor 265 times that of CO_2.

5.2.2. Other Harmful Gases Emitted as a By-product of Electricity Generation

Carbon Monoxide (CO)

Carbon monoxide is a very weak direct greenhouse gas, but has important indirect effects on global warming. CO reacts with hydroxyl (OH) radicals in the atmosphere, reducing their abundance.

Sulfur Dioxide (SO_2)

Exposure to sulfur dioxide can have significant impacts to the human respiratory system. Short term exposure to SO_2 can make breathing difficult and the effect is worse for children, the elderly, and those with asthma. SO_2 also contributes to formation of acid rain.

Nitrogen Oxides (NO_x)

Nitrogen oxides can also cause breathing problems for healthy people and especially for those with asthma. The EPA measured that NO_x concentrations inside vehicles can be 2-3 times higher than at locations away from roadways. Nitrogen oxides also react in the air to produce smog and acid rain.

Volatile Organic Compounds (VOC)

Volatile organic compounds cause many problems as indoor and outdoor air pollutants. Outdoor VOC emissions can create photochemical smog. VOCs are any compound of carbon, not including carbon dioxide, carbon monoxide, carbonic acid, metallic carbides, and ammonium carbonate.

5.3. Greenhouse Gas Emissions Summary - Commercial and Utility/Residential

The following sections, starting on the next page, provide general information on each electric utility provider and a summary of the associated greenhouse gas emissions for each of the vehicle types.

a. Omaha Public Power District (OPPD) - Commercial

Omaha Public Power District is a publicly owned electric utility that serves a population of 849,000 people, and is the 12th largest public power utility in the U.S. While its headquarters is located in Omaha, Nebraska, OPPD has several other locations in its 13-county, 5,000-square-mile service area in southeast Nebraska. Current fuel sources for generation include low-sulfur coal, wind, landfill gas, natural gas and fuel oil, and hydroelectric [4]. The North Omaha Station and Nebraska City Station burn low-sulfur coal, and units for each station were retrofitted with emission control systems in 2016. Three peaking plants are fueled by natural gas and fuel oil, including Cass County Station, Jones Street Station, and Sarpy County Station. The Elk City Station uses methane and other gases from decomposing trash in the Douglas County Landfill. With the stations, OPPD also has purchase power agreements with eight wind facilities in Nebraska. OPPD retired the nuclear-powered Fort Calhoun Station, and ceased generation on Oct 24th, 2016 with completed defueling outage in Oct- 2016.

The resource mix is estimated, and emissions are calculated from eGRID 2020 power plant data tool [1]. Table C1 and C2 provide a summary of GHG emissions for each vehicle type based on the primary energy source used for driving one mile and for driving 11,556 miles annually [5]. Detailed calculations are provided in Appendix D.

Table C1: Greenhouse Gas Emissions (Grams per Mile) for OPPD Utility Company.

	CV	E85	DV	CNG	EV
					OPPD (30% Renewable)
CO2 Equiv.	354.69	346.22	364.36	285.18	212.590
CO2	354.06	343.44	357.57	280.08	211.041
CO	2.8611	2.7	2.7362	2.7	0.200
CH4 (Methane)	0.0067	0.01	0.0296	0.1025	0.023
N2O	0.0016	0.0085	0.0203	0.0085	0.003
NOx	0.12	0.12	0.2324	0.12	0.166
SO2	0.0042	0.0006	0.002	0.0012	0.324
VOC	0.1684	0.22	0.0722	0.17	0.002

Table C2: Greenhouse Gas Emissions in lbs. for One Year

	CV	E85	DV	CNG	EV
					OPPD (30% Renewable)
CO2 Equiv.	9036.309	8820.522	9282.668	7265.428	5,399.776
CO2	9020.259	8749.697	9109.682	7135.497	5,360.436
CO	72.891	68.787	69.709	68.787	5.088
CH4 (Methane)	0.171	0.255	0.754	2.611	0.578
N2O	0.041	0.217	0.517	0.217	0.083
NOx	3.057	3.057	5.921	3.057	4.205
SO2	0.107	0.015	0.051	0.031	8.224
VOC	4.290	5.605	1.839	4.331	0.061

b. Omaha Public Power District (OPPD) – Utility/Residential

The resource mix is estimated, and emissions are calculated from eGRID 2020 power plant data tool [1]. Table C3 and C4 provide a summary of GHG emissions for each vehicle type based on the primary energy source used for driving one mile and for driving 11,556 miles annually [5]. Detailed calculations are provided in Appendix D.

Table C3: Greenhouse Gas Emissions (Grams Per Mile) for OPPD Utility Company.

	CV	EV
		OPPD (30% Renewable)
CO2 Equiv.	354.69	212.590
CO2	354.06	211.041
CO	2.8611	0.200
CH4 (Methane)	0.0067	0.023
N2O	0.0016	0.003
NOx	0.12	0.166
SO2	0.0042	0.324
VOC	0.1684	0.002

Table C4: Greenhouse Gas Emissions in lbs. for One Year.

	CV	EV
		OPPD (30% Renewable)
CO2 Equiv.	9036.309	5,399.776
CO2	9020.259	5,360.436
CO	72.891	5.088
CH4 (Methane)	0.171	0.578
N2O	0.041	0.083
NOx	3.057	4.205
SO2	0.107	8.224
VOC	4.290	0.061

c. Nebraska Public Power District (NPPD)

NPPD's revenue is mainly derived from wholesale power supply agreements with 46 municipalities and 24 rural public power districts and rural cooperatives who rely totally or partially on NPPD's electrical system. NPPD also serves about The NPPD electrical grid system delivers power to about 600,000 Nebraskans [6]. NPPD owns or has operating control of 24 generating facilities, and their current fuel sources include coal, nuclear, natural gas and oil, hydropower, wind and solar. They have two low-sulfur coal stations including Gerald Gentleman Station and Sheldon Station. Their natural gas facilities include the Beatrice Power Station and Canaday Station. There are three oil peaking units located in Hallam, Hebron, and McCook. Wind is supplied from eight facilities located in Nebraska. NPPD operates three hydroelectric generators located in North Platte, Kearney, and Spencer [7].

The resource mix is estimated, and emissions are calculated from eGRID 2020 power plant data tool [1]. Tables C5 and C6 provide a summary of GHG emissions for each vehicle type based on the primary energy source used for driving one mile and for driving 11,556 miles annually [5]. Detailed calculations are provided in Appendix D.

Table C5: Greenhouse Gas Emissions Factors (Grams Per Mile) for NPPD Utility Company.

	CV	E85	DV	CNG	EV
					NPPD (22% Renewable)
CO2 Equiv.	354.69	346.22	364.36	285.18	78.266
CO2	354.06	343.44	357.57	280.08	77.730
CO	2.8611	2.7	2.7362	2.7	0.070
CH4 (Methane)	0.0067	0.01	0.0296	0.1025	0.008
N2O	0.0016	0.0085	0.0203	0.0085	0.001
NOx	0.12	0.12	0.2324	0.12	0.119
SO2	0.0042	0.0006	0.002	0.0012	0.171
VOC	0.1684	0.22	0.0722	0.17	0.001

Table C6: Greenhouse Gas Emissions in lbs. for One Year.

	CV	E85	DV	CNG	EV
					NPPD (22% Renewable)
CO2 Equiv.	9036.309	8820.522	9282.668	7265.428	1,987.949
CO2	9020.259	8749.697	9109.682	7135.497	1,974.353
CO	72.891	68.787	69.709	68.787	1.772
CH4 (Methane)	0.171	0.255	0.754	2.611	0.199
N2O	0.041	0.217	0.517	0.217	0.029
NOx	3.057	3.057	5.921	3.057	3.011
SO2	0.107	0.015	0.051	0.031	4.334
VOC	4.290	5.605	1.839	4.331	0.027

d. Lincoln Electric System (LES)

LES services approximately 200 square miles within Lancaster County in Nebraska, comprising the cities of Lincoln, Prairie Home, Waverly, Walton, Cheney, and Emerald. Approximately 136,000 retail customers. Their fuel sources include coal, natural gas, landfill gas, hydropower, wind, and solar. LES owns the coal-powered Laramie River Station, and is a part owner of the Walter Scott, Jr. Energy Center Unit 4. They are currently under a purchase agreement with NPPD for part of the output from Gerald Gentleman Stations. LES has three natural gas stations including 8th & J, Rokeby, and Terry Bundy Stations. Their 5-MW landfill gas facility was completed in 2014 from the Bluff Road Landfill. They also purchase hydropower through Western Area Power Administration, and they are in a power purchase agreement to receive wind power from seven facilities located in Nebraska, Oklahoma, and Kansas. LES has their own wind generators capable of generating 1 MW. They also launched their SunShares program in Jul-2014 to allow customers to voluntarily support a local community solar project, and the 5-MW project was finished in Jun-2016 [8].

The resource mix is estimated, and emissions are calculated from eGRID 2020 power plant data tool [1]. Tables C7 and C8 provide a summary of GHG emissions for each vehicle type based on the primary energy source used for driving one mile and for driving 11,556 miles annually [5]. Detailed calculations are in Appendix D.

Table C7: Greenhouse Gas Emissions Factors (Grams Per Mile) for LES Utility Company.

	CV	E85	DV	CNG	EV
					LES (34% Renewable)
CO2 Equiv.	354.69	346.22	364.36	285.18	305.675
CO2	354.06	343.44	357.57	280.08	304.845
CO	2.8611	2.7	2.7362	2.7	0.111
CH4 (Methane)	0.0067	0.01	0.0296	0.1025	0.012
N2O	0.0016	0.0085	0.0203	0.0085	0.002
NOx	0.12	0.12	0.2324	0.12	1.080
SO2	0.0042	0.0006	0.002	0.0012	0.120
VOC	0.1684	0.22	0.0722	0.17	0.003

Table C8: Greenhouse Gas Emissions in lbs. for One Year.

	CV	E85	DV	CNG	EV
					LES (34% Renewable)
CO2 Equiv.	9036.309	8820.522	9282.668	7265.428	7,764.140
CO2	9020.259	8749.697	9109.682	7135.497	7,743.074
CO	72.891	68.787	69.709	68.787	2.817
CH4 (Methane)	0.171	0.255	0.754	2.611	0.316
N2O	0.041	0.217	0.517	0.217	0.044
NOx	3.057	3.057	5.921	3.057	27.438
SO2	0.107	0.015	0.051	0.031	3.050
VOC	4.290	5.605	1.839	4.331	0.070

e. Fremont Utilities

The Fremont Electric Service Area covers 60 square miles including the City of Fremont and the surrounding Area. The electric division provides power to 14,210 homes and businesses. The Lon D. Wright Power Plant at First and Luther Road is the utility's power production facility, and it is staffed by three shifts 24-hours a day to provide our customers economical, safe, and reliable electric service.

The coal fired plant located on the east side of Fremont has three units producing 16.5, 22, and 91.5 megawatts respectively. Each year the plant uses approximately 370,000 ton of coal to produce about 620,128 megawatt hours of electricity [9].

The resource mix is estimated, and emissions are calculated from eGRID 2020 power plant data tool [1]. Tables C9 and C10 provide a summary of GHG emissions for each vehicle type based on the primary energy source used for driving one mile and for driving 11,556 miles annually [5]. Detailed calculations are provided in Appendix D.

Table C9: Greenhouse Gas Emissions Factors (Grams Per Mile) for Fremont Utility Company.

	CV	E85	DV	CNG	EV
					Fremont (22% Renewable)
CO2 Equiv.	354.69	346.22	364.36	285.18	118.401
CO2	354.06	343.44	357.57	280.08	117.040
CO	2.8611	2.7	2.7362	2.7	0.185
CH4 (Methane)	0.0067	0.01	0.0296	0.1025	0.020
N2O	0.0016	0.0085	0.0203	0.0085	0.003
NOx	0.12	0.12	0.2324	0.12	0.120
SO2	0.0042	0.0006	0.002	0.0012	0.202
VOC	0.1684	0.22	0.0722	0.17	0.003

Table C10: Greenhouse Gas Emissions in lbs. for One Year.

	CV	E85	DV	CNG	EV
					Fremont (22% Renewable)
CO2 Equiv.	9036.309	8820.522	9282.668	7265.428	3,007.394
CO2	9020.259	8749.697	9109.682	7135.497	2,972.809
CO	72.891	68.787	69.709	68.787	4.708
CH4 (Methane)	0.171	0.255	0.754	2.611	0.504
N2O	0.041	0.217	0.517	0.217	0.074
NOx	3.057	3.057	5.921	3.057	3.048
SO2	0.107	0.015	0.051	0.031	5.135
VOC	4.290	5.605	1.839	4.331	0.074

f. City of Hastings Utilities

Hastings Utilities serves 56 square miles, including the city of Hastings and the village of Juniata. Most electricity is generated by the coal-fired Gerald T. Whelan Energy Center. The rest of the generation is provided by the Don Henry Power Center and the North Denver Station. The Don Henry Power Center operates primarily on natural gas, and at times fuel oil. The North Denver Station has two natural gas fired generators. The largest peak demand for Hastings Utilities was 100.7 MW in Jul-2005, but they are capable of producing approximately 135 MW. Any electricity generation that goes beyond local needs can be sold on the wholesale market, and the sales revenues help to keep local electric rates down. [10]

The resource mix is estimated, and emissions are calculated from eGRID 2020 power plant data tool [1]. Tables C11 and C12 provide a summary of GHG emissions for each vehicle type based on the primary energy source used for driving one mile and for driving 11,556 miles annually [5]. Detailed calculations are provided in Appendix D.

Table C11: Greenhouse Gas Emissions Factors (Grams Per Mile) for Hastings Utility Company.

	CV	E85	DV	CNG	EV
					Hastings (7% Renewable)
CO2 Equiv.	354.69	346.22	364.36	285.18	319.767
CO2	354.06	343.44	357.57	280.08	317.731
CO	2.8611	2.7	2.7362	2.7	0.197
CH4 (Methane)	0.0067	0.01	0.0296	0.1025	0.030
N2O	0.0016	0.0085	0.0203	0.0085	0.004
NOx	0.12	0.12	0.2324	0.12	0.357
SO2	0.0042	0.0006	0.002	0.0012	0.363
VOC	0.1684	0.22	0.0722	0.17	0.004

Table C12: Greenhouse Gas Emissions in lbs. for One Year.

	CV	E85	DV	CNG	EV
					Hastings (7% Renewable)
CO2 Equiv.	9036.309	8820.522	9282.668	7265.428	8,122.071
CO2	9020.259	8749.697	9109.682	7135.497	8,070.380
CO	72.891	68.787	69.709	68.787	5.002
CH4 (Methane)	0.171	0.255	0.754	2.611	0.761
N2O	0.041	0.217	0.517	0.217	0.110
NOx	3.057	3.057	5.921	3.057	9.075
SO2	0.107	0.015	0.051	0.031	9.225
VOC	4.290	5.605	1.839	4.331	0.092

g. Nebraska City Utilities

Nebraska City Utilities provides electric, natural gas, water and waste water service to Nebraska City and electric and natural gas service to several communities in the area. It maintains three natural gas fired power plants to serve its peaking needs as necessary and in time of grid outages. Nebraska City Utilities also has a 1.67% participation or approximately 10 MW in the OPPD Unit2 just directly south of Nebraska City. This coal fired unit is capable of producing 670 MW and went on-line in 2009. Nebraska City Utilities also has a 4.55% participation in the Public Power Generation Agency's Hastings NE WEC-2 Unit scheduled to be commercial in Feb-2011. For Projects outside the jurisdiction of the Nebraska City Utilities, Omaha Public Power District is the electric provider. Nebraska City Utilities and Omaha Public Power District are collaborative partners for projects requiring large sources or redundant power. [11]

The resource mix is estimated, and emissions are calculated from eGRID 2020 power plant data tool [1]. Tables C13 and C14 provide a summary of GHG emissions for each vehicle type based on the primary energy source used for driving one mile and for driving 11,556 miles annually [5]. Detailed calculations are provided in Appendix D.

Table C13: Greenhouse Gas Emissions Factors (Grams Per Mile) for Nebraska City Utilities.

	CV	E85	DV	CNG	EV
					Nebraska City (24% Renewable)
CO2 Equiv.	354.69	346.22	364.36	285.18	247.564
CO2	354.06	343.44	357.57	280.08	245.615
CO	2.8611	2.7	2.7362	2.7	0.223
CH4 (Methane)	0.0067	0.01	0.0296	0.1025	0.029
N2O	0.0016	0.0085	0.0203	0.0085	0.004
NOx	0.12	0.12	0.2324	0.12	0.140
SO2	0.0042	0.0006	0.002	0.0012	0.003
VOC	0.1684	0.22	0.0722	0.17	0.001

Table C14: Greenhouse Gas Emissions in lbs. for One Year.

	CV	E85	DV	CNG	EV
					Nebraska City (24% Renewable)
CO2 Equiv.	9036.309	8820.522	9282.668	7265.428	6,288.128
CO2	9020.259	8749.697	9109.682	7135.497	6,238.630
CO	72.891	68.787	69.709	68.787	5.673
CH4 (Methane)	0.171	0.255	0.754	2.611	0.725
N2O	0.041	0.217	0.517	0.217	0.105
NOx	3.057	3.057	5.921	3.057	3.552
SO2	0.107	0.015	0.051	0.031	0.065
VOC	4.290	5.605	1.839	4.331	0.028

h. City of Wayne Electric Distribution system

20% of Wayne's power requirements are supplied from the Western Area Power Administration (WAPA) from hydro power, 15% from a power purchase agreement with Nextera Energy from wind resource, 10% from Nebraska Public Power District (NPPD) from coal resource and the remaining power comes from Big Rivers Electric Corp. based out of Henderson, Kentucky from coal resource [12].

The resource mix is estimated, and emissions are calculated from eGRID 2020 power plant data tool [1]. Tables C15 and C16 provide a summary of GHG emissions for each vehicle type based on the primary energy source used for driving one mile and for driving 11,556 miles annually [5]. Detailed calculations are provided in Appendix D.

Table C15: Greenhouse Gas Emissions Factors (Grams per Mile) for Wayne Electric Distribution system.

	CV	E85	DV	CNG	EV
					Wayne (35% Renewable)
CO2 Equiv.	354.69	346.22	364.36	285.18	208.002
CO2	354.06	343.44	357.57	280.08	206.370
CO	2.8611	2.7	2.7362	2.7	0.191
CH4 (Methane)	0.0067	0.01	0.0296	0.1025	0.024
N2O	0.0016	0.0085	0.0203	0.0085	0.003
NOx	0.12	0.12	0.2324	0.12	0.185
SO2	0.0042	0.0006	0.002	0.0012	0.358
VOC	0.1684	0.22	0.0722	0.17	0.002

Table C16: Greenhouse Gas Emissions in lbs. for One Year.

	CV	E85	DV	CNG	EV
					Wayne (35% Renewable)
CO2 Equiv.	9036.309	8820.522	9282.668	7265.428	5,283.260
CO2	9020.259	8749.697	9109.682	7135.497	5,241.797
CO	72.891	68.787	69.709	68.787	4.840
CH4 (Methane)	0.171	0.255	0.754	2.611	0.607
N2O	0.041	0.217	0.517	0.217	0.088
NOx	3.057	3.057	5.921	3.057	4.703
SO2	0.107	0.015	0.051	0.031	9.084
VOC	4.290	5.605	1.839	4.331	0.055

5.4. References

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6. Appendix D. Detailed Greenhouse Gas Calculations

6.1. Conventional Vehicle (CV)

Carbon Dioxide (CO_2) Emissions

The EPA has stated that burning 1 gallon of gasoline emits 8,887 grams of CO2 emissions. [1]

CO_2 emissions from burning 1 gallon of gasoline = 8,887 grams

Average fuel economy for the model year 2020 = 25.7 mpg [3]

CO_2 emissions per mile = 8,887 /25.7 = **345.798 grams CO_2 per mile**

Methane (CH_4) Emissions

Methane emissions are based on emission factors for GHG Inventories, last modified on April 1st ,2021. Mobile Combustion CH4 emission factors for on-road gasoline vehicles for model year 2020 is **0.0052 g of CH_4 per mile** [4].

Nitrous Oxide (N_2O) Emissions

Nitrous Oxide emissions are based on emission factors for GHG Inventories, last modified on April 1st ,2021. Mobile Combustion N_2O emission factors for on-road gasoline vehicles for model year 2018 **is 0.0016 g of N_2O per mile [**4].

Carbon Monoxide (CO) Emissions

A 2013 report by Argonne National Laboratory uses a lifetime mileage-weighted average air pollutant emission factors for gasoline passenger cars for model years 1990-2020 to estimate the CO emission factors for 2018 to be **2.8611 g of CO per mile** [5].

Sulfur Dioxide (SO_2) Emissions

Using the same 2013 report by Argonne National Laboratory, the SO_2 emission factor for model year 2018 is estimated to be **0.0042 g of SO_2 per mile** [5].

Nitrogen Oxides (NO_x) Emissions

Using the same 2013 report by Argonne National Laboratory, the NO_x emission factor for model year 2018 is estimated to be **0.12 g of NO_x per mile** [5].

Volatile Organic Compound (VOC) Emissions

The VOC emission factors were estimated in the 2013 report by Argonne National Laboratory, including the exhaust and evaporation separately.

Model Year	VOC, exhaust (g/mile)	VOC, evaporation	Total
2018	0.1078	0.0604	0.1684

The total emission factor is **0.1684 g of VOC per mile** [5].

Carbon Dioxide Equivalent Emissions

Using the individual emissions values calculated above, CVs have a CO_2 equivalent emissions rate of: CO_2 Equivalent = 1*CO_2 emissions + 25*CH_4 emissions + 298*N_2O emissions

= (1***345.798** g) + (25***0.0052** g) + (298***0.0016**)

= **346.40 g**

6.2. Diesel Vehicle (DV)

Carbon Dioxide (CO_2) Emissions

For CO_2 emissions from burning a gallon of diesel = 10,180 CO_2/gallon [1]
For the model year 2018, the average mileage for a diesel vehicle is 29.32 mpg. [2]
CO_2 emissions per mile = 10,180 / 29.32 = **347.20 g of CO_2 per mile**

Methane (CH_4) Emissions

Methane emissions are based on emission factors for GHG Inventories, last modified on April 1st ,2021. Mobile Combustion CH_4 emission factors for on-road diesel vehicles for model year 2007-2018 is **0.0302 g of CH_4 per mile** [4].

Nitrous Oxide (N_2O) Emissions

Nitrous Oxide emissions are based on emission factors for GHG Inventories, last modified on April 1st ,2021. Mobile Combustion N_2O emission factors for on-road diesel vehicles for model year 2007-2018 is **0.0192 g of N_2O per mile** [4].

Carbon Monoxide (CO) Emissions

A 2013 report by Argonne National Laboratory uses a lifetime mileage-weighted average air pollutant emission factors for diesel passenger cars for model years 2001-2020 to estimate the CO emission factors for 2016 to be **2.7362 g of CO per mile** [5].

Nitrogen Oxides (NO_x) Emissions

Using the same 2013 report by Argonne National Laboratory, the NO_x emission factor for 2016 is estimated to be **0.2324 g of NO_x per mile** [5].

Sulfur Dioxide (SO_2) Emissions

Using the same 2013 report by Argonne National Laboratory, the SO2 emission factor for 2016 is estimated to be **0.0020 g of SO_2 per mile** [5].

Volatile Organic Compound (VOC) Emissions

The VOC emission factors were estimated in the 2013 report by Argonne National Laboratory, including the exhaust and evaporation separately.

Model Year	VOC, exhaust (g/mile)	VOC, evaporation	Total
2018	0.0722	------	0.0722

The total emission factor for is **0.0722 g of VOC per mile** [5].

Carbon Dioxide Equivalent (CO_2) Emissions

Using the individual emission rates calculated above, the CO_2 equivalent rate is:
CO_2 Equivalent = 1*CO_2 emissions + 25*CH_4 emissions + 298*N_2O emissions
= 1*347.20 + 25*0.0302 + 298*0.0192
= **353.676 grams CO_2 per mile.**

6.3. Compressed Natural Gas Vehicle (CNG)

Carbon Dioxide (CO_2) Emissions

Vehicles converted to CNG generally achieve a mpg equivalent similar to its mpg rating when running on gasoline; hence, the fuel economy used is similar to that of CV, 25.7 mpg.
EPA's TRENDS for light-duty automotive technology, carbon dioxide emissions, and fuel economy trends: 1975 through 2016 reports the emission factor per gallon of gas equivalent as:

7030 g/gallon / 25.7 = **273.54 g of CO_2 per mile** [6]

Methane (CH_4) Emissions

Methane emissions are based on emission factors for GHG Inventories, last modified on April 1st ,2021. Mobile Combustion CH_4 emission factors for CNG light-duty vehicles for model year 1996-present is **0.0820 g of CH_4 per mile** [4].

Nitrous Oxide (N_2O) Emissions

Nitrous Oxide emissions are based on emission factors for GHG Inventories, last modified on Mar 26th, 2020. Mobile Combustion N_2O emission factors for CNG light-duty vehicles for model year 1996-present is **0.0060 g of N_2O per mile** [4].

Carbon Monoxide (CO) Emissions

According to a 2015 pump-to-wheel simulation, a regular CNG vehicle emits **2.700 grams of CO per mile** [7].

Nitrogen Oxides (NO_x) Emissions

The same simulation found that CNG passenger vehicles emit **0.12 grams NO_x per mile.** [7]

Sulfur Dioxide (SO_2) Emissions

The same simulation found that CNG passenger vehicles emit **0.0012 grams SO_2 per mile.** [7]

Volatile Organic Compound (VOC) Emissions

The same simulation found that CNG passenger vehicles emit **0.17 grams VOC per mile.** [7]

Carbon Dioxide Equivalent (CO_2e) Emissions

Using the individual emissions values calculated above, CNG passenger vehicles have a CO_2 equivalent emissions rate of:

CO_2 Equivalent = 1*CO_2 emissions + 25*CH_4 emissions + 298*N_2O emissions

= 1* 273.54 + 25* 0.0820 + 298*0.0060

= **277.378 grams CO_2e per mile.**

6.4. Flexible Fuel Vehicles (FFVs) – E85

Carbon Dioxide (CO_2) Emissions

Flexible fuel vehicles (FFVs) can run on gasoline or gasoline-ethanol blends of up to 85% ethanol (E85). There are few engine and fuel system modifications, but mostly they are identical to gasoline-only models. The fuel economy used is 73% of the conventional vehicle (CV) fuel economy based on 25.7 mpg data. The fuel economy used in the calculations is 18.3 mpg. [9] EPA's TRENDS for light-duty automotive technology, carbon dioxide emissions, and fuel economy trends: 2019 reports the emission factor per gallon of gas equivalent as:

0.97 * 354.06 = **343.44 g of CO_2 per mile** [8]

Alternate method to verify Carbon Dioxide (CO_2) Emissions

Office of Energy efficiency and Renewable energy, US DOE, publishes fuel economy and tail-pipe emissions for all cars in a model year [9]. To verify the calculations for miles per gallon and carbon emissions for a CV and E85 vehicle, the following table will help visualize the difference for the model year 2018.

Model Name	mpg of CV	mpg of E85	%mpg of E85 to CV	g/mi of E85	g/mi of CV	%emission of E85 less than CV
2018 Mercedes-Benz CLA250 4matic	27	20	74.07	328	328	0.000
2018 Mercedes-Benz GLA250 4matic	26	19	73.08	337	337	0.000
2018 Jeep Renegade 2WD	25	19	76.00	331	357	7.283
2018 Jeep Cherokee FWD	25	18	72.00	351	361	2.770
2018 Ford Escape FWD FFV	24	18	75.00	353	369	4.336
2018 Jeep Cherokee 4WD	23	17	73.91	372	378	1.587
2018 Ford Transit Connect Van FFV	23	17	73.91	375	392	4.337
2018 Chrysler 300	23	17	73.91	376	389	3.342
2018 Dodge Charger	23	17	73.91	376	389	3.342
2018 Ford F150 Pickup 2WD FFV	22	16	72.73	393	407	3.440
2018 Ford Transit Connect Wagon FFV	22	16	72.73	388	404	3.960

Model name	mpg of CV	mpg of E85	%mpg of E85 to CV	g/mi of E85	g/mi of CV	%emission of E85 less than CV
2018 Ford Transit Connect Wagon LWB FFV	22	16	72.73	388	404	3.960
2018 Chevrolet Impala	22	16	72.73	394	409	3.667
2018 Ford F150 2WD FFV BASE PAYLOAD LT TIR	21	16	76.19	393	423	7.092
2018 Chrysler 300 AWD	21	16	76.19	399	415	3.855
2018 Dodge Charger AWD	21	16	76.19	399	415	3.855
2018 Ford Taurus FWD FFV	21	16	76.19	401	423	5.201
2018 Chevrolet Silverado C15 2WD	20	14	70.00	457	448	-2.009
2018 GMC Sierra C15 2WD	20	14	70.00	457	448	-2.009
2018 Ford F150 Pickup 4WD FFV	20	15	75.00	421	437	3.661
2018 Dodge Grand Caravan	20	14	70.00	440	445	1.124
2018 Ram 1500 2WD	20	14	70.00	455	450	-1.111
2018 Ford Explorer 2WD FFV	20	15	75.00	433	455	4.835
2018 Mercedes-Benz GLE350 4matic	19	14	73.68	429	457	6.127
2018 Dodge Journey	19	14	73.68	440	456	3.509
2018 Ford Taurus AWD FFV	19	14	73.68	437	467	6.424
2018 Ford F150 Pickup 2WD FFV	19	14	73.68	455	457	0.438
2018 Chevrolet Silverado K15 4WD	19	13	68.42	476	473	-0.634
2018 Ford F150 4WD FFV BASE PAYLOAD LT TIRE	19	15	78.95	420	467	10.064
2018 GMC Sierra K15 4WD	19	13	68.42	477	474	-0.633
2018 Chevrolet Silverado C15 2WD	19	14	73.68	455	475	4.211
2018 Chevrolet Suburban C1500 2WD	19	14	73.68	443	468	5.342
2018 Chevrolet Tahoe C1500 2WD	19	14	73.68	443	468	5.342
2018 GMC Sierra C15 2WD	19	14	73.68	456	475	4.000
2018 GMC Yukon C1500 2WD	19	14	73.68	443	468	5.342
2018 GMC Yukon C1500 XL 2WD	19	14	73.68	443	468	5.342

Model name	mpg of CV	mpg of E85	%mpg of E85 to CV	g/mi of E85	g/mi of CV	%emission of E85 less than CV
2018 Ram 1500 4WD	19	13	68.42	482	475	-1.474
2018 Chevrolet Silverado K15 4WD	18	13	72.22	489	489	0.000
2018 Chevrolet Tahoe K1500 4WD	18	13	72.22	482	497	3.018
2018 Ford Explorer AWD FFV	18	14	77.78	464	483	3.934
2018 Ford F150 Pickup 4WD FFV	18	13	72.22	478	498	4.016
2018 GMC Sierra K15 4WD	18	13	72.22	489	489	0.000
2018 GMC Yukon K1500 4WD	18	13	72.22	482	497	3.018
2018 Nissan Frontier 2WD FFV	18	13	72.22	471	494	4.656
2018 Ford F150 2WD FFV BASE PAYLOAD	18	14	77.78	456	491	7.128
2018 Chevrolet Suburban K1500 4WD	18	12	66.67	515	504	-2.183
2018 GMC Yukon K1500 XL 4WD	18	12	66.67	515	504	-2.183
2018 Ford F150 4WD FFV BASE PAYLOAD	17	13	76.47	481	522	7.854
2018 Ford F150 5.0L 2WD FFV GVWR>7599 LBS	17	14	82.35	455	520	12.500
2018 Nissan Frontier 4WD FFV	17	12	70.59	503	520	3.269
2018 Ford F150 5.0L 4WD FFV GVWR>7599 LBS	17	13	76.47	498	523	4.780
2018 Ford Transit T150 Wagon FFV	16	11	68.75	548	570	3.860
2018 Toyota Tundra 4WD FFV	15	10	66.67	622	604	-2.980
2018 Toyota Sequoia 4WD FFV	14	10	71.43	594	614	3.257
Average			**73.10**	441.81	456.48	**3.220**

The average fuel economy of E85 vehicle is **73.10%** to that of CV.

% emission of E85 vehicle is **3.22%** less than % emission of CV.

Methane (CH_4) Emissions

Methane emissions are based on emission factors for GHG Inventories, last modified on April 1st ,2021. Mobile Combustion CH_4 emission factors for Ethanol light-duty vehicles for model year 1996-present is **0.0820 g of CH_4 per mile** [4].

Nitrous Oxide (N_2O) Emissions

Nitrous Oxide emissions are based on emission factors for GHG Inventories, last modified on April 1st ,2021. Mobile Combustion N_2O emission factors for Ethanol light-duty vehicles for model year 1996-present is **0.0060 g of N_2O per mile** [4].

Carbon Monoxide (CO) Emissions

According to a 2015 pump-to-wheel simulation, a regular Ethanol vehicle emits **2.700 grams of CO per mile** [7].

Nitrogen Oxides (NO_x) Emissions

The same simulation found that CNG passenger vehicles emit **0.12 grams NO_x per mile.** [7]

Sulfur Dioxide (SO_2) Emissions

The same simulation found that CNG passenger vehicles emit **0.0006 grams SO_2 per mile.** [7]

Volatile Organic Compound (VOC) Emissions

The same simulation found that CNG passenger vehicles emit **0.22 grams VOC per mile.** [7]

Carbon Dioxide Equivalent (CO_2e) Emissions

Using the individual emissions values calculated above, CNG passenger vehicles have a CO_2 equivalent emissions rate of:

CO_2 Equivalent = 1*CO_2 emissions + 25*CH_4 emissions + 298*N_2O emissions

= 1* 343.44 + 25* 0.0820 + 298*0.0060

= **347.278 grams CO_2e per mile.**

6.5. Battery Electric Vehicle (EV)

6.5.1. Vehicle Efficiency Calculation

EV vehicle: 136 MpGe, based on the combined fuel economy average (city and highway) of all the vehicle types (make and model) published in the Fuel Economy Guide for the year 2020 [15].

The process to convert from MPGe to miles per kWh is as follows:
1 gallon equivalent = 33.7 kWh (it takes 33.7 kWh to create the same amount of heat as burning 1 gallon of gasoline) [16].

136 MPGe / 33.7 kWh/gallon = **4.03 miles per kWh**

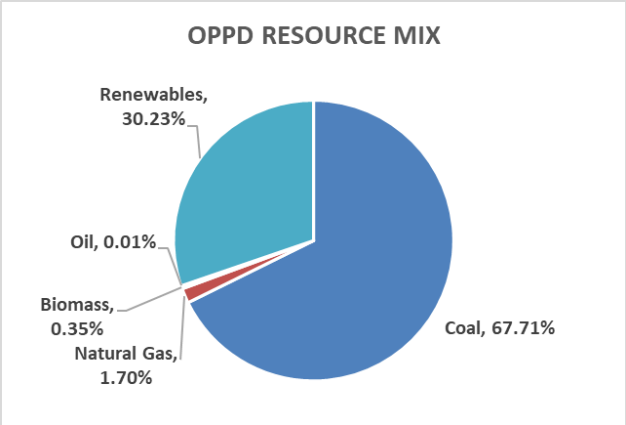
6.5.2. Electricity Generation Mix and Emissions Calculations

The electricity generation mix is calculated using the available information from utilities and associated emissions for all the electric utility providers serving the participating members is calculated using the eGRID 2020 power plant data tool published by EPA [10]. The CO and VOC emission data are not provided in the tool, and hence, baseline emission rates are used as per a report published by the California Environmental Protection Agency (CEPA) in 2009 [11].

a. Omaha Public Power District (OPPD) Data Analysis - Commercial

Electricity Generation Resource Mix

The resource mix has been estimated from OPPD's Integrated Resource plan (IRP) published in 2021 [17]. To determine the resource mix, MWh generation of individual generating facilities are used, published in the IRP. The emissions from the generating facilities are then calculated as per the eGRID 2020 power plant data tool [10]. The tables below show the emission calculations.



Carbon Dioxide (CO_2) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of CO_2 Emission per kWh [10]		Contribution to Total Grams of CO_2 Emission per kWh
Coal	67.71%	x	1045.65	=	707.9865
Natural Gas	1.70%	x	698.53	=	11.8800
Biomass	0.35%	x	0.00	=	0.0000
Oil	0.01%	x	3744.68	=	0.4157
Renewables	30.23%	x	0.00	=	0.0000

Total	grams/kWh	720.282
	grams/mile	211.041

Carbon Monoxide (CO) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of CO Emission per kWh [11]		Contribution to Total Grams of CO Emission per kWh
Coal	67.71%	x	1.0006	=	0.6775
Natural Gas	1.70%	x	0.1953	=	0.0033
Biomass	0.35%	x	0.8160	=	0.0028
Oil	0.01%	x	0.1546	=	0.0000
Renewables	30.23%	x	0.0000	=	0.0000

Total	grams/kWh	0.684
	grams/mile	0.200

Methane (CH_4) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of CH_4 Emission per kWh [10]		Contribution to Total Grams of CH_4 Emission per kWh
Coal	67.71%	x	0.1142	=	0.0774
Natural Gas	1.70%	x	0.0211	=	0.0004
Biomass	0.35%	x	0.0000	=	0.0000
Oil	0.01%	x	0.0707	=	0.0000
Renewables	30.23%	x	0.0000	=	0.0000

Total	grams/kWh	0.078
	grams/mile	0.023

Nitrous Oxide (N_2O) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of N_2O Emission per kWh [10]		Contribution to Total Grams of N_2O Emission per kWh
Coal	67.71%	x	0.0165	=	0.0112
Natural Gas	1.70%	x	0.0028	=	0.0000
Biomass	0.35%	x	0.0000	=	0.0000
Oil	0.01%	x	0.0140	=	0.0000
Renewables	30.23%	x	0.0000	=	0.0000

Total	grams/kWh	0.011
	grams/mile	0.003

Sulfur Dioxide (SO_2) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of SO_2 Emission per kWh [10]		Contribution to Total Grams of SO_2 Emission per kWh
Coal	67.71%	x	1.6252	=	1.1004
Natural Gas	1.70%	x	0.2256	=	0.0038
Biomass	0.35%	x	0.1828	=	0.0006
Oil	0.01%	x	1.1844	=	0.0001
Renewables	30.23%	x	0.0000	=	0.0000

Total	grams/kWh	1.105
	grams/mile	0.324

Nitrogen Oxides (NO_x) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of NO_x Emission per kWh [10]		Contribution to Total Grams of NO_x Emission per kWh
Coal	67.71%	x	0.8152	=	0.5520
Natural Gas	1.70%	x	0.5871	=	0.0100
Biomass	0.35%	x	0.0000	=	0.0000
Oil	0.01%	x	27.5689	=	0.0031
Renewables	30.23%	x	0.0000	=	0.0000
			Total	grams/kWh	0.565
				grams/mile	0.166

Volatile Organic Compound (VOC) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of VOC Emission per kWh [11]		Contribution to Total Grams of VOC Emission per kWh
Coal	67.71%	x	0.0114	=	0.0077
Natural Gas	1.70%	x	0.0169	=	0.0003
Biomass	0.35%	x	0.0570	=	0.0002
Oil	0.01%	x	0.0198	=	0.0000
Renewables	30.23%	x	0.0000	=	0.0000
			Total	grams/kWh	0.008
				grams/mile	0.002

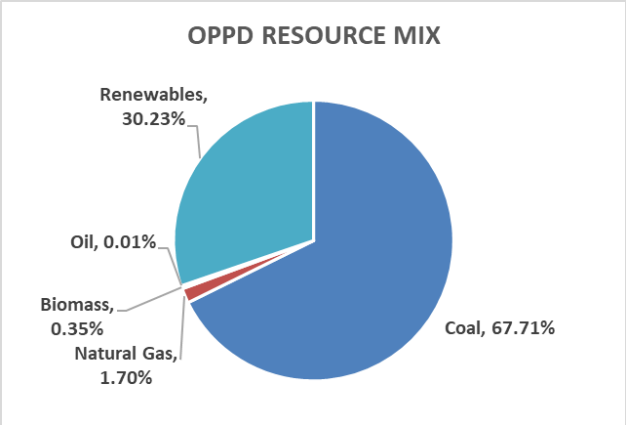
Carbon Dioxide Equivalent (CO_2e) Emissions

Contributing Gas	grams/mile		GWP		Contribution to Total CO2e Emission
CO2	211.04	x	1	=	211.0408
CH4	0.023	x	25	=	0.5693
N2O	0.0033	x	298	=	0.9796
			Total	grams/mile	212.590

b. Omaha Public Power District (OPPD) Data Analysis – Utility/Residential

Electricity Generation Resource Mix

The resource mix has been estimated from OPPD's Integrated Resource plan (IRP) published in 2021 [17]. To determine the resource mix, MWh generation of individual generating facilities are used, published in the IRP. The emissions from the generating facilities are then calculated as per the eGRID 2020 power plant data tool [10]. The tables below show the emission calculations.



Carbon Dioxide (CO_2) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of CO_2 Emission per kWh [10]		Contribution to Total Grams of CO_2 Emission per kWh
Coal	67.71%	x	1045.65	=	707.9865
Natural Gas	1.70%	x	698.53	=	11.8800
Biomass	0.35%	x	0.00	=	0.0000
Oil	0.01%	x	3744.68	=	0.4157
Renewables	30.23%	x	0.00	=	0.0000
			Total	grams/kWh	720.282
				grams/mile	211.041

Carbon Monoxide (CO) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of CO Emission per kWh [11]		Contribution to Total Grams of CO Emission per kWh
Coal	67.71%	x	1.0006	=	0.6775
Natural Gas	1.70%	x	0.1953	=	0.0033
Biomass	0.35%	x	0.8160	=	0.0028
Oil	0.01%	x	0.1546	=	0.0000
Renewables	30.23%	x	0.0000	=	0.0000
			Total	grams/kWh	0.684
				grams/mile	0.200

Methane (CH_4) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of CH_4 Emission per kWh [10]		Contribution to Total Grams of CH_4 Emission per kWh
Coal	67.71%	x	0.1142	=	0.0774
Natural Gas	1.70%	x	0.0211	=	0.0004
Biomass	0.35%	x	0.0000	=	0.0000
Oil	0.01%	x	0.0707	=	0.0000
Renewables	30.23%	x	0.0000	=	0.0000

Total	grams/kWh	0.078
	grams/mile	0.023

Nitrous Oxide (N_2O) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of N_2O Emission per kWh [10]		Contribution to Total Grams of N_2O Emission per kWh
Coal	67.71%	x	0.0165	=	0.0112
Natural Gas	1.70%	x	0.0028	=	0.0000
Biomass	0.35%	x	0.0000	=	0.0000
Oil	0.01%	x	0.0140	=	0.0000
Renewables	30.23%	x	0.0000	=	0.0000

Total	grams/kWh	0.011
	grams/mile	0.003

Sulfur Dioxide (SO_2) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of SO_2 Emission per kWh [10]		Contribution to Total Grams of SO_2 Emission per kWh
Coal	67.71%	x	1.6252	=	1.1004
Natural Gas	1.70%	x	0.2256	=	0.0038
Biomass	0.35%	x	0.1828	=	0.0006
Oil	0.01%	x	1.1844	=	0.0001
Renewables	30.23%	x	0.0000	=	0.0000

Total	grams/kWh	1.105
	grams/mile	0.324

Nitrogen Oxides (NO_x) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of NO_x Emission per kWh [10]		Contribution to Total Grams of NO_x Emission per kWh
Coal	67.71%	x	0.8152	=	0.5520
Natural Gas	1.70%	x	0.5871	=	0.0100
Biomass	0.35%	x	0.0000	=	0.0000
Oil	0.01%	x	27.5689	=	0.0031
Renewables	30.23%	x	0.0000	=	0.0000
			Total	grams/kWh	0.565
				grams/mile	0.166

Volatile Organic Compound (VOC) Emissions

Energy Source	Percentage of Total Energy Production [17]		Grams of VOC Emission per kWh [11]		Contribution to Total Grams of VOC Emission per kWh
Coal	67.71%	x	0.0114	=	0.0077
Natural Gas	1.70%	x	0.0169	=	0.0003
Biomass	0.35%	x	0.0570	=	0.0002
Oil	0.01%	x	0.0198	=	0.0000
Renewables	30.23%	x	0.0000	=	0.0000
			Total	grams/kWh	0.008
				grams/mile	0.002

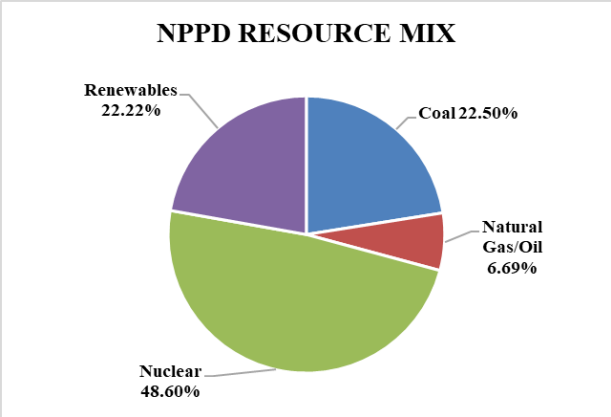
Carbon Dioxide Equivalent (CO_2e) Emissions

Contributing Gas	grams/mile		GWP		Contribution to Total CO2e Emission
CO2	211.04	x	1	=	211.0408
CH4	0.023	x	25	=	0.5693
N2O	0.0033	x	298	=	0.9796
			Total	grams/mile	212.59

c. Nebraska Public Power District (NPPD) Data Analysis

Electricity Generation Resource Mix

The resource mix has been estimated from the published resource mix percentages given in NPPD's website [18]. This also contains the plant information where NPPD either owns or have a power purchase agreement with their capacity (MW). Natural gas and oil are reported together, and emissions are calculated likewise. The emission information is calculated as per the eGRID 2020 power plant data tool [10]. The tables below show the emission calculations.



Carbon Dioxide (CO_2) Emissions

Energy Source	Percentage of Total Energy Production [18]		Grams of CO_2 Emission per kWh [10]		Contribution to Total Grams of CO_2 Emission per kWh
Coal	22.50%	x	979.10	=	220.2503
Natural Gas/Oil	6.69%	x	673.32	=	45.0437
Nuclear	48.60%	x	0.00	=	0.0000
Renewables	22.22%	x	0.00	=	0.0000
			Total	grams/kWh	265.294
				grams/mile	77.730

Carbon Monoxide (CO) Emissions

Energy Source	Percentage of Total Energy Production [18]		Grams of CO Emission per kWh [11]		Contribution to Total Grams of CO Emission per kWh
Coal	22.50%	x	1.0006	=	0.2251
Natural Gas/Oil	6.69%	x	0.1953	=	0.0131
Nuclear	48.60%	x	0.0000	=	0.0000
Renewables	22.22%	x	0.0000	=	0.0000
			Total	grams/kWh	0.238
				grams/mile	0.070

Methane (CH_4) Emissions

Energy Source	Percentage of Total Energy Production [18]		Grams of CH_4 Emission per kWh [10]		Contribution to Total Grams of CH_4 Emission per kWh
Coal	22.50%	x	0.1130	=	0.0254
Natural Gas/Oil	6.69%	x	0.0193	=	0.0013
Nuclear	48.60%	x	0.0000	=	0.0000
Renewables	22.22%	x	0.0000	=	0.0000
			Total	grams/kWh	0.027
				grams/mile	0.008

Nitrous Oxide (N_2O) Emissions

Energy Source	Percentage of Total Energy Production [18]		Grams of N_2O Emission per kWh [10]		Contribution to Total Grams of N_2O Emission per kWh
Coal	22.50%	x	0.0163	=	0.0037
Natural Gas/Oil	6.69%	x	0.0032	=	0.0002
Nuclear	48.60%	x	0.0000	=	0.0000
Renewables	22.22%	x	0.0000	=	0.0000
			Total	grams/kWh	0.004
				grams/mile	0.001

Sulfur Dioxide (SO_2) Emissions

Energy Source	Percentage of Total Energy Production [18]		Grams of SO_2 Emission per kWh [10]		Contribution to Total Grams of SO_2 Emission per kWh
Coal	22.50%	x	2.3110	=	0.5199
Natural Gas/Oil	6.69%	x	0.9331	=	0.0624
Nuclear	48.60%	x	0.0000	=	0.0000
Renewables	22.22%	x	0.0000	=	0.0000
			Total	grams/kWh	0.582
				grams/mile	0.171

Nitrogen Oxides (NOx) Emissions

Energy Source	Percentage of Total Energy Production [18]		Grams of NO_x Emission per kWh [10]		Contribution to Total Grams of NO_x Emission per kWh
Coal	22.50%	x	1.0076	=	0.2267
Natural Gas/Oil	6.69%	x	2.6600	=	0.1779
Nuclear	48.60%	x	0.0000	=	0.0000
Renewables	22.22%	x	0.0000	=	0.0000
			Total	grams/kWh	0.405
				grams/mile	0.119

Volatile Organic Compound (VOC) Emissions

Energy Source	Percentage of Total Energy Production [18]		Grams of VOC Emission per kWh [11]		Contribution to Total Grams of VOC Emission per kWh
Coal	22.50%	x	0.0114	=	0.0026
Natural Gas/Oil	6.69%	x	0.0169	=	0.0011
Nuclear	48.60%	x	0.0000	=	0.0000
Renewables	22.22%	x	0.0000	=	0.0000
			Total	grams/kWh	0.004
				grams/mile	0.001

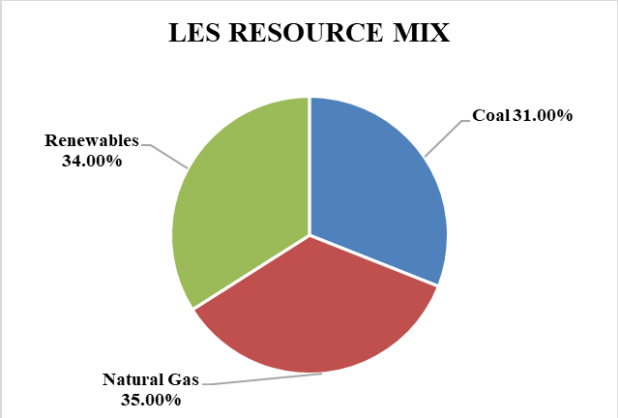
Carbon Dioxide Equivalent (CO_2e) Emissions

Contributing Gas	grams/mile		GWP		Contribution to Total CO2e Emission
CO2	77.73	x	1	=	77.7304
CH4	0.008	x	25	=	0.1957
N2O	0.0011	x	298	=	0.3396
			Total	grams/mile	78.266

d. Lincoln Electric System (LES) Data Analysis

Electricity Generation Resource Mix

The resource mix has been estimated from the published information in LES's website [19]. Individual plant information is determined from LES IRP [20] published in the year 2017. Plant capacity (MW) of individual facilities is given in the IRP. The emissions are then calculated as per the eGRID 2020 power plant data tool [10]. The tables below show the emission calculations.



Carbon Dioxide (CO_2) Emissions

Energy Source	Percentage of Total Energy Production [19]		Grams of CO_2 Emission per kWh [10]			Contribution to Total Grams of CO_2 Emission per kWh
Coal	31.00%	x	1044.96	=		323.9386
Natural Gas	35.00%	x	2047.14	=		716.4989
Renewables	34.00%	x	0.00	=		0.0000
			Total		grams/kWh	1040.437
					grams/mile	304.845

Carbon Monoxide (CO) Emissions

Energy Source	Percentage of Total Energy Production [19]		Grams of CO Emission per kWh [11]			Contribution to Total Grams of CO Emission per kWh
Coal	31.00%	x	1.0006	=		0.3102
Natural Gas	35.00%	x	0.1953	=		0.0684
Renewables	34.00%	x	0.0000	=		0.0000
			Total		grams/kWh	0.379
					grams/mile	0.111

Methane (CH_4) Emissions

Energy Source	Percentage of Total Energy Production [19]		Grams of CH_4 Emission per kWh [10]		Contribution to Total Grams of CH_4 Emission per kWh
Coal	31.00%	x	0.1111	=	0.0344
Natural Gas	35.00%	x	0.0230	=	0.0081
Renewables	34.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.042
				grams/mile	0.012

Nitrous Oxide (N_2O) Emissions

Energy Source	Percentage of Total Energy Production [19]		Grams of N_2O Emission per kWh [10]		Contribution to Total Grams of N_2O Emission per kWh
Coal	31.00%	x	0.0161	=	0.0050
Natural Gas	35.00%	x	0.0027	=	0.0009
Renewables	34.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.006
				grams/mile	0.002

Sulfur Dioxide (SO_2) Emissions

Energy Source	Percentage of Total Energy Production [19]		Grams of SO_2 Emission per kWh [10]		Contribution to Total Grams of SO_2 Emission per kWh
Coal	31.00%	x	1.2040	=	0.3732
Natural Gas	35.00%	x	0.1045	=	0.0366
Renewables	34.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.410
				grams/mile	0.120

Nitrogen Oxides (NO_x) Emissions

Energy Source	Percentage of Total Energy Production [19]		Grams of NO_X Emission per kWh [10]		Contribution to Total Grams of NO_X Emission per kWh
Coal	31.00%	x	0.7019	=	0.2176
Natural Gas	35.00%	x	9.9122	=	3.4693
Renewables	34.00%	x	0.0000	=	0.0000
			Total	grams/kWh	3.687
				grams/mile	1.080

Volatile Organic Compound (VOC) Emissions

Coal	Percentage of Total Energy Production [19]		Grams of VOC Emission per kWh [11]		Contribution to Total Grams of VOC Emission per kWh
Coal	31.00%	x	0.0114	=	0.0035
Natural Gas	35.00%	x	0.0169	=	0.0059
Renewables	34.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.009
				grams/mile	0.003

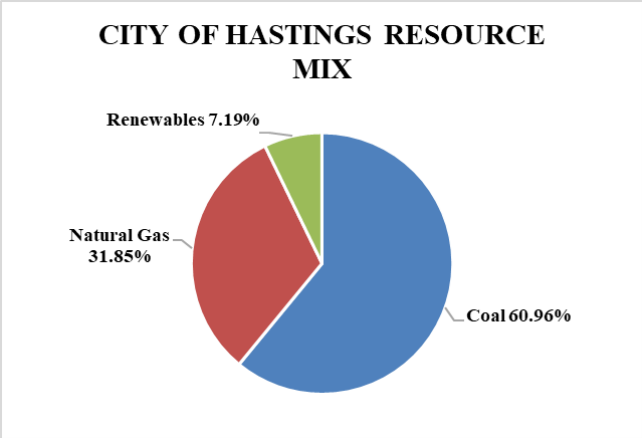
Carbon Dioxide Equivalent (CO_2e) Emissions

Contributing Gas	grams/mile		GWP		Contribution to Total CO2e Emission
CO2	304.85	x	1	=	304.8454
CH4	0.012	x	25	=	0.3112
N2O	0.0017	x	298	=	0.5181
			Total	grams/mile	305.675

e. City of Hastings Utilities Data Analysis

Electricity Generation Resource Mix

The resource mix has been estimated from City of Hasting's Integrated Resource plan (IRP) published in 2017 [21]. To determine the resource mix, plant capacity (MW) of individual generating facilities is used, as published in the IRP. Assumption has been made that Hasting's share for WEC-2 unit is still at 35 MW and WAPA purchase is hydropower. The emissions from the generating facilities are then calculated as per the eGRID 2020 power plant data tool [10]. The tables below show the emission calculations.



Carbon Dioxide (CO2) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO_2 Emission per kWh [10]		Contribution to Total Grams of CO_2 Emission per kWh
Coal	60.96%	x	1227.54	=	748.2535
Natural Gas	31.85%	x	1055.44	=	336.1641
Renewables	7.19%	x	0.00	=	0.0000
			Total	grams/kWh	1084.418
				grams/mile	317.731

Carbon Monoxide (CO) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO Emission per kWh [11]		Contribution to Total Grams of CO Emission per kWh
Coal	60.96%	x	1.0006	=	0.6099
Natural Gas	31.85%	x	0.1953	=	0.0622
Renewables	7.19%	x	0.0000	=	0.0000
			Total	grams/kWh	0.672
				grams/mile	0.197

Methane (CH_4) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CH_4 Emission per kWh [10]		Contribution to Total Grams of CH_4 Emission per kWh
Coal	60.96%	x	0.1574	=	0.0959
Natural Gas	31.85%	x	0.0198	=	0.0063
Renewables	7.19%	x	0.0000	=	0.0000
			Total	grams/kWh	0.102
				grams/mile	0.030

Nitrous Oxide (N_2O) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of N_2O Emission per kWh [10]		Contribution to Total Grams of N_2O Emission per kWh
Coal	60.96%	x	0.0231	=	0.0141
Natural Gas	31.85%	x	0.0020	=	0.0006
Renewables	7.19%	x	0.0000	=	0.0000
			Total	grams/kWh	0.015
				grams/mile	0.004

Sulfur Dioxide (SO_2) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of SO_2 Emission per kWh [10]		Contribution to Total Grams of SO_2 Emission per kWh
Coal	60.96%	x	2.0185	=	1.2304
Natural Gas	31.85%	x	0.0289	=	0.0092
Renewables	7.19%	x	0.0000	=	0.0000
			Total	grams/kWh	1.240
				grams/mile	0.363

Nitrogen Oxides (NOx) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of NO_x Emission per kWh [10]		Contribution to Total Grams of NO_x Emission per kWh
Coal	60.96%	x	0.6205	=	0.3782
Natural Gas	31.85%	x	2.6411	=	0.8412
Renewables	7.19%	x	0.0000	=	0.0000
			Total	grams/kWh	1.219
				grams/mile	0.357

Volatile Organic Compound (VOC) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of VOC Emission per kWh [11]		Contribution to Total Grams of VOC Emission per kWh
Coal	60.96%	x	0.0114	=	0.0069
Natural Gas	31.85%	x	0.0169	=	0.0054
Renewables	7.19%	x	0.0000	=	0.0000
			Total	grams/kWh	0.012
				grams/mile	0.004

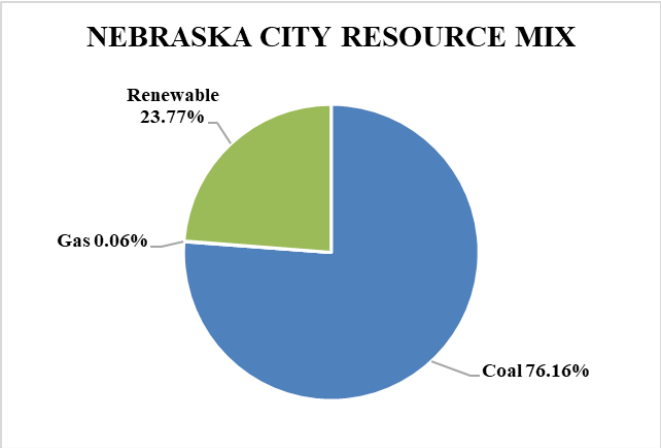
Carbon Dioxide Equivalent (CO_2e) Emissions

Contributing Gas	grams/mile		GWP		Contribution to Total CO2e Emission
CO2	317.73	x	1	=	317.7315
CH4	0.030	x	25	=	0.7491
N2O	0.0043	x	298	=	1.2860
			Total	grams/mile	319.767

f. Nebraska City Utilities Data Analysis

Electricity Generation Resource Mix

The resource mix has been estimated from Nebraska City's Integrated Resource plan (IRP) published in 2017 identifying the generating sources for 10-year period [21]. To determine the resource mix, plant net generation (MWh) of individual generating facilities is used, as published in the IRP. The market purchase of sales with a capacity of 0 MW and generation of 5,216 MWh has not been included in the calculation. The emissions from the generating facilities are then calculated as per the eGRID 2020 power plant data tool [10]. The tables below show the emission calculations.



Carbon Dioxide (CO_2) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO_2 Emission per kWh [10]		Contribution to Total Grams of CO_2 Emission per kWh
Coal	76.16%	x	1100.62	=	838.2852
Natural Gas	0.06%	x	0.00	=	0.0000
Renewable	23.77%	x	0.00	=	0.0000
			Total	grams/kWh	838.285
				grams/mile	245.615

Carbon Monoxide (CO) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO Emission per kWh [11]		Contribution to Total Grams of CO Emission per kWh
Coal	76.16%	x	1.0006	=	0.7621
Natural Gas	0.06%	x	0.1953	=	0.0001
Renewable	23.77%	x	0.0000	=	0.0000
			Total	grams/kWh	0.762
				grams/mile	0.223

Methane (CH_4) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO Emission per kWh [10]		Contribution to Total Grams of CO Emission per kWh
Coal	76.16%	x	0.1279	=	0.0974
Natural Gas	0.06%	x	0.0000	=	0.0000
Renewable	23.77%	x	0.0000	=	0.0000
			Total	grams/kWh	0.097
				grams/mile	0.029

Nitrous Oxide (N_2O) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO Emission per kWh [10]		Contribution to Total Grams of CO Emission per kWh
Coal	76.16%	x	0.0186	=	0.0141
Natural Gas	0.06%	x	0.0000	=	0.0000
Renewable	23.77%	x	0.0000	=	0.0000
			Total	grams/kWh	0.014
				grams/mile	0.004

Sulfur Dioxide (SO_2) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO Emission per kWh [10]		Contribution to Total Grams of CO Emission per kWh
Coal	76.16%	x	1.5764	=	1.2007
Natural Gas	0.06%	x	0.0000	=	0.0000
Renewable	23.77%	x	0.0000	=	0.0000
			Total	grams/kWh	1.201
				grams/mile	0.352

Nitrogen Oxides (NO_x) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO Emission per kWh [10]		Contribution to Total Grams of CO Emission per kWh
Coal	76.16%	x	0.6266	=	0.4772
Natural Gas	0.06%	x	0.0000	=	0.0000
Renewable	23.77%	x	0.0000	=	0.0000
			Total	grams/kWh	0.477
				grams/mile	0.140

Volatile Organic Compound (VOC) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO Emission per kWh [11]		Contribution to Total Grams of CO Emission per kWh
Coal	76.16%	x	0.0114	=	0.0087
Natural Gas	0.06%	x	0.0169	=	0.0000
Renewable	23.77%	x	0.0000	=	0.0000
			Total	grams/kWh	0.009
				grams/mile	0.003

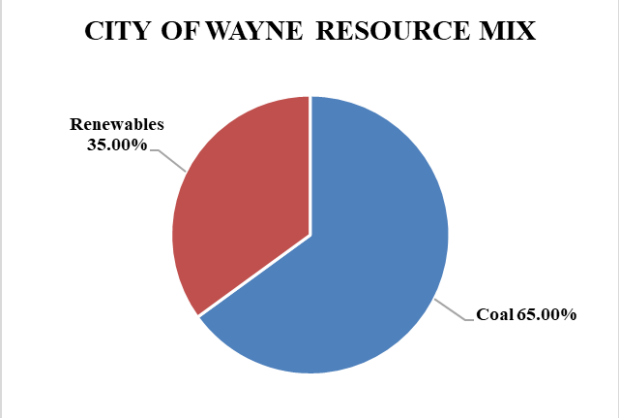
Carbon Dioxide Equivalent (CO_2e) Emissions

Contributing Gas	grams/mile		GWP		Contribution to Total CO2e Emission
CO2	245.62	x	1	=	245.6154
CH4	0.029	x	25	=	0.7136
N2O	0.0041	x	298	=	1.2351
			Total	grams/mile	247.564

g. City of Wayne Electric Distribution System Data Analysis

Electricity Generation Resource Mix

The resource mix has been estimated from the published resource mix percentages given in City of Wayne's website [22]. Individual plant information is retrieved from City of Wayne's IRP published in 2018 [21]. The IRP entails a 5-year plan. Assumption has been made for emission calculation for 10% of NPPD's share of coal resources, where an average has been used. The emission information is calculated as per the eGRID 2020 power plant data tool [10]. The tables below show the emission calculations.



Carbon Dioxide (CO_2) Emissions

Energy Source	Percentage of Total Energy Production [22]		Grams of CO_2 Emission per kWh [10]		Contribution to Total Grams of CO_2 Emission per kWh
Coal	65.00%	x	1083.60	=	704.3407
Renewables	35.00%	x	0.00	=	0.0000
			Total	grams/kWh	704.341
				grams/mile	206.370

Carbon Monoxide (CO) Emissions

Energy Source	Percentage of Total Energy Production [22]		Grams of CO Emission per kWh [11]		Contribution to Total Grams of CO Emission per kWh
Coal	65.00%	x	1.0006	=	0.6504
Renewables	35.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.650
				grams/mile	0.191

Methane (CH_4) Emissions

Energy Source	Percentage of Total Energy Production [22]		Grams of CH_4 Emission per kWh [10]		Contribution to Total Grams of CH_4 Emission per kWh
Coal	65.00%	x	0.1255	=	0.0816
Renewables	35.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.082
				grams/mile	0.024

Nitrous Oxide (N_2O) Emissions

Energy Source	Percentage of Total Energy Production [22]		Grams of N_2O Emission per kWh [10]		Contribution to Total Grams of N_2O Emission per kWh
Coal	65.00%	x	0.0182	=	0.0119
Renewables	35.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.012
				grams/mile	0.003

Sulfur Dioxide (SO_2) Emissions

Energy Source	Percentage of Total Energy Production [22]		Grams of SO_2 Emission per kWh [10]		Contribution to Total Grams of SO_2 Emission per kWh
Coal	65.00%	x	1.8778	=	1.2206
Renewables	35.00%	x	0.0000	=	0.0000
			Total	grams/kWh	1.221
				grams/mile	0.358

Nitrogen Oxides (NOx) Emissions

Energy Source	Percentage of Total Energy Production [22]		Grams of NO_x Emission per kWh [10]		Contribution to Total Grams of NO_x Emission per kWh
Coal	65.00%	x	0.9723	=	0.6320
Renewables	35.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.632
				grams/mile	0.185

Volatile Organic Compound (VOC) Emissions

Energy Source	Percentage of Total Energy Production [22]		Grams of NO_x Emission per kWh [11]		Contribution to Total Grams of NO_x Emission per kWh
Coal	65.00%	x	0.0114	=	0.0074
Renewables	35.00%	x	0.0000	=	0.0000
			Total	grams/kWh	0.007
				grams/mile	0.002

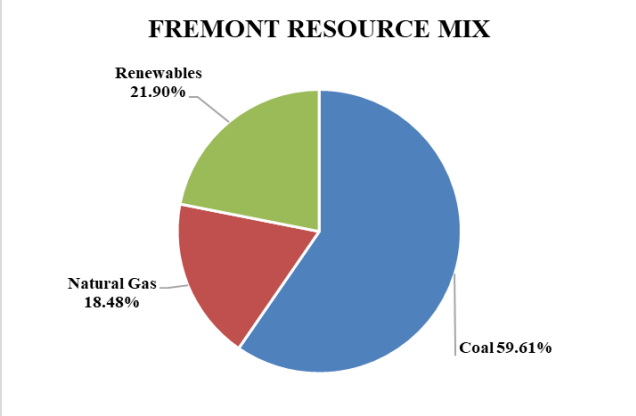
Carbon Dioxide Equivalent (CO_2e) Emissions

Contributing Gas	grams/mile		GWP		Contribution to Total CO2e Emission
CO2	206.37	x	1	=	206.3700
CH4	0.024	x	25	=	0.5977
N2O	0.0035	x	298	=	1.0347
			Total	grams/mile	208.002

h. Fremont Utilities Data Analysis

Electricity Generation Resource Mix

The resource mix has been estimated from Fremont's Integrated Resource plan (IRP) published in 2018 [21]. The IRP is generated for 2018-2022. To determine the resource mix, plant capacity (MW) of individual generating facilities is used, as published in the IRP. Since Derril G. Marshall Generating station is part of Lon D. Wright Power plant, assumption has been made that both of them have the same emission data. The emissions from the generating facilities are then calculated as per the eGRID 2020 power plant data tool [10]. The tables below show the emission calculations.



Carbon Dioxide (CO_2) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO_2 Emission per kWh [10]		Contribution to Total Grams of CO_2 Emission per kWh
Coal	59.61%	x	511.49	=	304.9106
Natural Gas	18.48%	x	511.49	=	94.5459
Renewables	21.90%	x	0.00	=	0.0000
			Total	grams/kWh	399.457
				grams/mile	117.040

Carbon Monoxide (CO) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CO Emission per kWh [11]		Contribution to Total Grams of CO Emission per kWh
Coal	59.61%	x	1.0006	=	0.5965
Natural Gas	18.48%	x	0.1953	=	0.0361
Renewables	21.90%	x	0.0000	=	0.0000
			Total	grams/kWh	0.633
				grams/mile	0.185

Methane (CH_4) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of CH_4 Emission per kWh [10]		Contribution to Total Grams of CH_4 Emission per kWh
Coal	59.61%	x	0.0866	=	0.0516
Natural Gas	18.48%	x	0.0866	=	0.0160
Renewables	21.90%	x	0.0000	=	0.0000
			Total	grams/kWh	0.068
				grams/mile	0.020

Nitrous Oxide (N_2O) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of N_2O Emission per kWh [10]		Contribution to Total Grams of N_2O Emission per kWh
Coal	59.61%	x	0.0127	=	0.0076
Natural Gas	18.48%	x	0.0127	=	0.0023
Renewables	21.90%	x	0.0000	=	0.0000
			Total	grams/kWh	0.010
				grams/mile	0.003

Sulfur Dioxide (SO_2) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of SO_2 Emission per kWh [10]		Contribution to Total Grams of SO_2 Emission per kWh
Coal	59.61%	x	0.8836	=	0.5267
Natural Gas	18.48%	x	0.8836	=	0.1633
Renewables	21.90%	x	0.0000	=	0.0000
			Total	grams/kWh	0.690
				grams/mile	0.202

Nitrogen Oxides (NO_x) Emissions

Energy Source	Percentage of Total Energy Production [21]		Grams of NO_X Emission per kWh [10]		Contribution to Total Grams of NO_X Emission per kWh
Coal	59.61%	x	0.5244	=	0.3126
Natural Gas	18.48%	x	0.5244	=	0.0969
Renewables	21.90%	x	0.0000	=	0.0000
			Total	grams/kWh	0.409
				grams/mile	0.120

Volatile Organic Compound (VOC) Emissions

Coal	Percentage of Total Energy Production [21]		Grams of VOC Emission per kWh [11]		Contribution to Total Grams of VOC Emission per kWh
Coal	59.61%	x	0.0114	=	0.0068
Natural Gas	18.48%	x	0.0169	=	0.0031
Renewables	21.90%	x	0.0000	=	0.0000
			Total	grams/kWh	0.010
				grams/mile	0.003

Carbon Dioxide Equivalent (CO_2e) Emissions

Contributing Gas	grams/mile		GWP		Contribution to Total CO2e Emission
CO2	117.04	x	1	=	117.0397
CH4	0.020	x	25	=	0.4956
N2O	0.0029	x	298	=	0.8660
			Total	grams/mile	118.401

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7. Appendix E. Detailed Analysis for Charging Stations - Monthly Detailed Data – March 2022

Introduction

In the tables and graphs that follow, the cost of miles driven using a comparable gasoline-powered vehicle (CV) is provided. Then, the cost of miles driven using the EVs are provided. The economic savings comparison is then provided. In addition to miles driven, maintenance costs and savings that include oil and filter changes for the CV and maintenance costs for the EVs are provided in the Other Cost Savings information for each station location. Similar calculations and analysis are provided for the GHG emissions and reductions.

Blue bars on graphs show daily energy usage while the green line shows cumulative usage. For this report, we are using the kWh data from ChargePoint™ to calculate the economic and environmental savings, accounting for the energy feedstock mix of each of the power generation districts in Nebraska.

Allen Consolidated Schools

Total Economic Saving Data (Fuel & Maintenance Cost Savings)

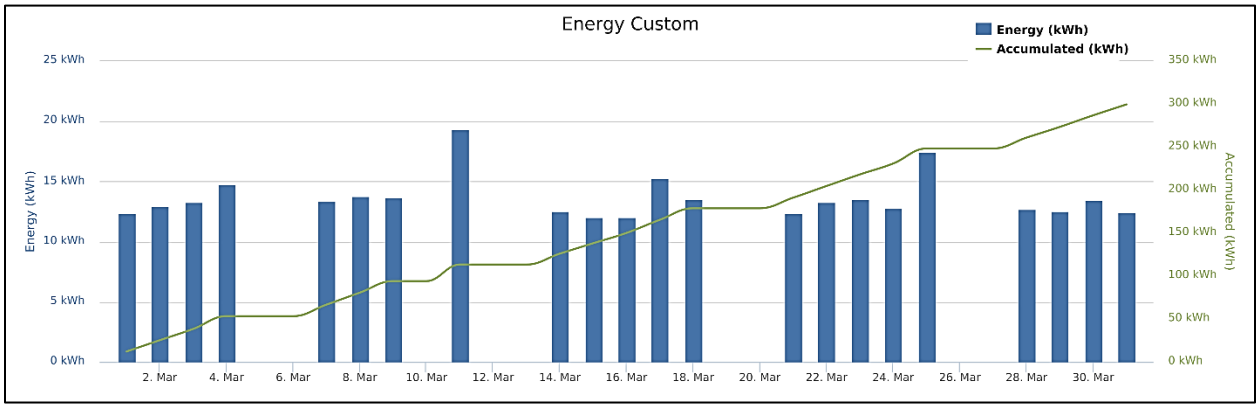
		This Month (March)	All Time
Miles Driven		**1,206.74**	**46,607.90**
Energy Consumed(kWh)		**299.44**	**13,611.98**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**177.03**	**5,004.41**
	Usage Cost Using EV(Electricity)	**20.66**	**1,069.95**
	Total Fuel Saving	**156.37**	**3,934.45**
Other Cost Saving	**CV Costs**	**73.61**	**2,431.36**
	EV Costs	**31.38**	**1,210.37**
	Total Other Cost Saving	**42.24**	**1,220.99**
Overall Economic Savings		**198.60**	**5,155.45**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**1,206.74**	**46,607.90**
Energy Consumed (kWh)		**299.44**	**13,611.98**
Co2 Emissions (lbs.)	**CV (Gas)**	**941.94**	**38,872.21**
	EV (Electricity)	**206.79**	**12,703.88**
	Total Fuel Saving	**735.15**	**26,168.33**
Co Emissions (lbs.)	**CV (Gas)**	**7.6116**	**521.3283**
	EV (Electricity)	**0.1856**	**10.3153**
	Total Fuel Saving	**7.4260**	**511.0130**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0112**	**1.0646**
	EV (Electricity)	**0.4539**	**31.8906**
	Total Fuel Saving	**(0.4427)**	**(30.8260)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.3192**	**32.2516**
	EV (Electricity)	**0.3154**	**38.3105**
	Total Fuel Saving	**0.0039**	**(6.0590)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0178**	**2.1826**
	EV (Electricity)	**0.0208**	**0.9144**
	Total Fuel Saving	**(0.0030)**	**1.2682**
VOC Emissions (lbs.)	**CV (Gas)**	**0.4480**	**18.7334**
	EV (Electricity)	**0.0029**	**0.2558**
	Total Fuel Saving	**0.4451**	**18.4776**

Energy Consumption Data

March 2022



Auburn Board of Public Works

Total Economic Saving Data (Fuel & Maintenance Cost Savings):

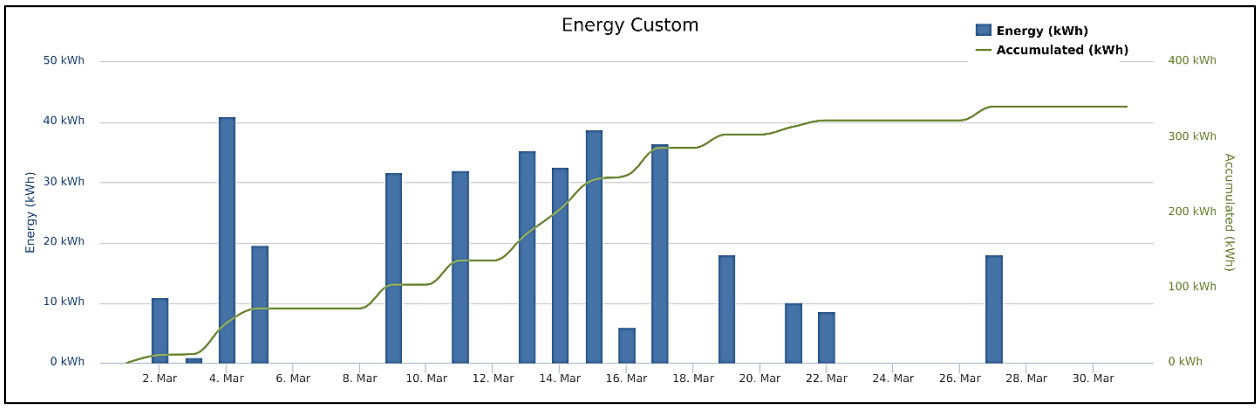
		This Month (March)	All Time
Miles Driven		**1,372.93**	**20,427.57**
Energy Consumed(kWh)		**340.68**	**5,839.84**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$202.46**	**$2,372.35**
	Usage Cost Using EV(Electricity)	**$32.06**	**$556.58**
	Total Fuel Saving	**$170.40**	**$1,815.77**
Other Cost Saving	**CV Costs**	**$83.75**	**$1,215.92**
	EV Costs	**$35.70**	**$504.24**
	Total Other Cost Saving	**$48.05**	**$711.69**
Overall Economic Savings		**$218.46**	**$2,527.46**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**1,372.93**	**20,427.57**
Energy Consumed (kWh)		**340.68**	**5,839.84**
Co2 Emissions (lbs.)	**CV (Gas)**	**1,071.67**	**16,049.28**
	EV (Electricity)	**743.43**	**5,741.84**
	Total Fuel Saving	**328.24**	**10,307.44**
Co Emissions (lbs.)	**CV (Gas)**	**8.6600**	**128.8497**
	EV (Electricity)	**0.6760**	**5.4880**
	Total Fuel Saving	**7.9840**	**123.3617**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0127**	**0.1891**
	EV (Electricity)	**0.0077**	**6.5151**
	Total Fuel Saving	**0.0050**	**(6.3259)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.3632**	**5.4042**
	EV (Electricity)	**0.4232**	**3.1700**
	Total Fuel Saving	**(0.0600)**	**2.2342**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0203**	**0.3400**
	EV (Electricity)	**0.0864**	**0.7302**
	Total Fuel Saving	**(0.0661)**	**(0.3902)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.5097**	**7.5839**
	EV (Electricity)	**0.0033**	**0.0512**
	Total Fuel Saving	**0.5064**	**7.5327**

Energy Consumption Data

March 2022



Aurora

SUMMARY OF ALL STATIONS
Total Economic Saving Data (Fuel & Maintenance Cost Savings):

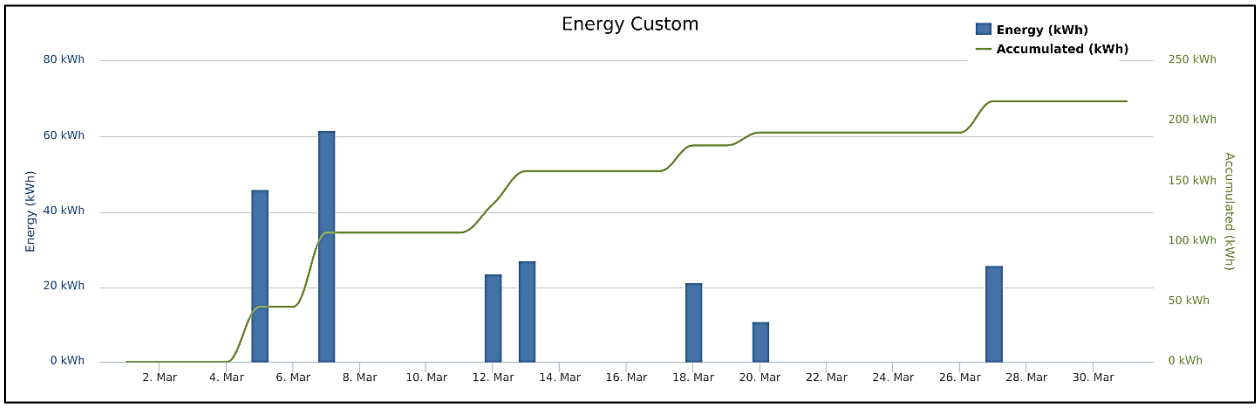
		This Month (March)	All Time
Miles Driven		**872.90**	**6,788.93**
Energy Consumed(kWh)		**216.60**	**1,909.92**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$130.12**	**$815.08**
	Usage Cost Using EV(Electricity)	**$14.95**	**$152.50**
	Total Fuel Saving	**$115.17**	**$662.58**
Other Cost Saving	**CV Costs**	**$53.25**	**$414.12**
	EV Costs	**$22.70**	**$176.51**
	Total Other Cost Saving	**$30.55**	**$237.61**
Overall Economic Savings		**$145.72**	**$900.20**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**872.90**	**6,788.93**
Energy Consumed (kWh)		**216.60**	**1,909.92**
Co2 Emissions (lbs.)	**CV (Gas)**	**681.36**	**5,299.22**
	EV (Electricity)	**149.59**	**2,514.06**
	Total Fuel Saving	**531.77**	**2,785.16**
Co Emissions (lbs.)	**CV (Gas)**	**5.5060**	**42.8221**
	EV (Electricity)	**0.1343**	**1.7572**
	Total Fuel Saving	**5.3717**	**41.0649**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0081**	**0.0629**
	EV (Electricity)	**0.3283**	**4.7068**
	Total Fuel Saving	**(0.3202)**	**(4.6440)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.2309**	**1.7960**
	EV (Electricity)	**0.2281**	**7.3744**
	Total Fuel Saving	**0.0028**	**(5.5783)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0129**	**0.1003**
	EV (Electricity)	**0.0151**	**0.2090**
	Total Fuel Saving	**(0.0022)**	**(0.1087)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.3241**	**2.5204**
	EV (Electricity)	**0.0021**	**0.0429**
	Total Fuel Saving	**0.3220**	**2.4776**

Energy Consumption Data

March 2022



Aurora (AURORANE / DC FAST 1):

Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**687.82**	**5,925.52**
Energy Consumed(kWh)		**170.68**	**1,667.22**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$104.62**	**$715.08**
	Usage Cost Using EV(Electricity)	**$11.78**	**$133.39**
	Total Fuel Saving	**$92.85**	**$581.69**
Other Cost Saving	**CV Costs**	**$41.96**	**$361.46**
	EV Costs	**$17.88**	**$154.06**
	Total Other Cost Saving	**$24.07**	**$207.39**
Overall Economic Savings		**$116.92**	**$789.08**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**687.82**	**5,925.52**
Energy Consumed (kWh)		**170.68**	**1,667.22**
Co2 Emissions (lbs.)	**CV (Gas)**	**536.89**	**4,625.27**
	EV (Electricity)	**117.87**	**2,195.50**
	Total Fuel Saving	**419.02**	**2,429.76**
Co Emissions (lbs.)	**CV (Gas)**	**4.3385**	**37.3760**
	EV (Electricity)	**0.1058**	**1.5344**
	Total Fuel Saving	**4.2327**	**35.8416**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0064**	**0.0549**
	EV (Electricity)	**0.2587**	**4.1101**
	Total Fuel Saving	**(0.2523)**	**(4.0552)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.1820**	**1.5676**
	EV (Electricity)	**0.1798**	**6.4414**
	Total Fuel Saving	**0.0022**	**(4.8738)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0102**	**0.0875**
	EV (Electricity)	**0.0119**	**0.1825**
	Total Fuel Saving	**(0.0017)**	**(0.0950)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.2554**	**2.1999**
	EV (Electricity)	**0.0016**	**0.0374**
	Total Fuel Saving	**0.2537**	**2.1625**

Aurora (One Level-2 station):

Economic Saving Data (Fuel & Maintenance Cost Savings):

Level 2 GW1		This Month (March)	All Time
Miles Driven		185.08	863.41
Energy Consumed(kWh)		45.93	242.71
Fuel Cost Saving	Usage Cost Using CV(Gas)	$25.49	$100.00
	Usage Cost Using EV(Electricity)	$3.17	$19.10
	Total Fuel Saving	$22.32	$80.90
Other Cost Saving	CV Costs	$11.29	$52.67
	EV Costs	$4.81	$22.45
	Total Other Cost Saving	$6.48	$30.22
Overall Economic Savings		$28.80	$111.12

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**185.08**	**863.41**
Energy Consumed (kWh)		**45.93**	**242.71**
Co2 Emissions (lbs.)	**CV (Gas)**	**144.47**	**673.95**
	EV (Electricity)	**31.72**	**318.55**
	Total Fuel Saving	**112.75**	**355.40**
Co Emissions (lbs.)	**CV (Gas)**	**1.1674**	**5.4461**
	EV (Electricity)	**0.0285**	**0.2229**
	Total Fuel Saving	**1.1389**	**5.2232**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0017**	**0.0080**
	EV (Electricity)	**0.0696**	**0.5967**
	Total Fuel Saving	**(0.0679)**	**(0.5887)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.0490**	**0.2284**
	EV (Electricity)	**0.0484**	**0.9330**
	Total Fuel Saving	**0.0006**	**(0.7045)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0027**	**0.0128**
	EV (Electricity)	**0.0032**	**0.0265**
	Total Fuel Saving	**(0.0005)**	**(0.0137)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.0687**	**0.3205**
	EV (Electricity)	**0.0004**	**0.0054**
	Total Fuel Saving	**0.0683**	**0.3151**

Ashland

SUMMARY OF ALL STATIONS
Total Economic Saving Data (Fuel & Maintenance Cost Savings):

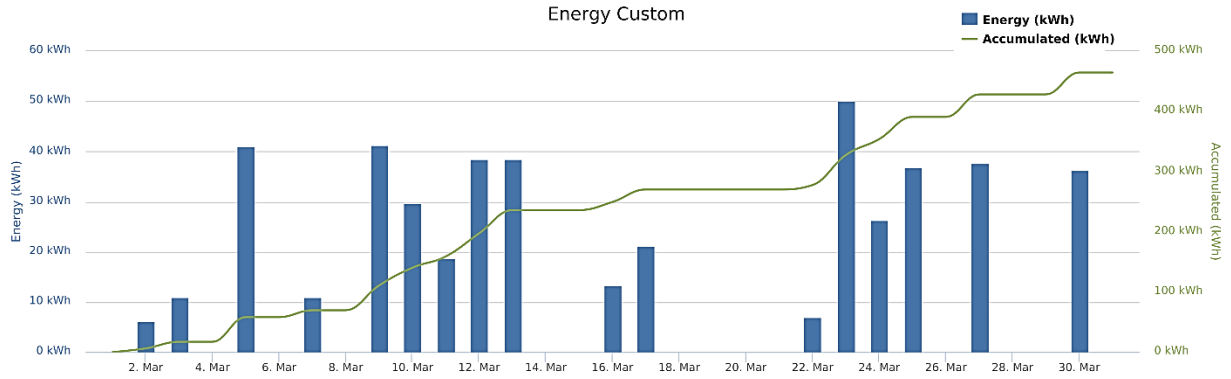
		This Month (March)	All Time
Miles Driven		**1,871.29**	**43,823.57**
Energy Consumed(kWh)		**464.34**	**12,905.22**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$275.56**	**$4,572.62**
	Usage Cost Using EV(Electricity)	**$41.02**	**$1,165.46**
	Total Fuel Saving	**$234.54**	**$3,407.17**
Other Cost Saving	**CV Costs**	**$114.15**	**$2,183.63**
	EV Costs	**$48.65**	**$820.44**
	Total Other Cost Saving	**$65.50**	**$1,363.19**
Overall Economic Savings		**$300.04**	**$4,770.36**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		1,871.29	43,823.57
Energy Consumed (kWh)		464.34	12,905.22
Co2 Emissions (lbs.)	CV (Gas)	1,460.67	35,356.22
	EV (Electricity)	870.65	18,805.68
	Total Fuel Saving	590.02	16,550.54
Co Emissions (lbs.)	CV (Gas)	11.8034	302.5657
	EV (Electricity)	0.8264	15.9348
	Total Fuel Saving	10.9770	286.6310
So2 Emissions (lbs.)	CV (Gas)	0.0173	0.4768
	EV (Electricity)	1.3357	40.8293
	Total Fuel Saving	(1.3184)	(40.3525)
Nox Emissions (lbs.)	CV (Gas)	0.4951	13.8832
	EV (Electricity)	0.6830	28.6856
	Total Fuel Saving	(0.1879)	(14.8024)
CH4 Emissions (lbs.)	CV (Gas)	0.0276	1.4712
	EV (Electricity)	0.0939	1.6725
	Total Fuel Saving	(0.0663)	(0.2013)
VOC Emissions (lbs.)	CV (Gas)	0.6947	16.4284
	EV (Electricity)	0.0099	0.3117
	Total Fuel Saving	0.6848	16.1167

Energy Consumption Data

March 2022



Ashland (Fast DC charging):

Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**1,601.32**	**29,135.93**
Energy Consumed(kWh)		**397.35**	**8,547.37**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$235.63**	**$3,103.73**
	Usage Cost Using EV(Electricity)	**$35.11**	**$773.29**
	Total Fuel Saving	**$200.52**	**$2,330.44**
Other Cost Saving	**CV Costs**	**$97.68**	**$1,455.34**
	EV Costs	**$41.63**	**$555.73**
	Total Other Cost Saving	**$56.05**	**$899.61**
Overall Economic Savings		**$256.57**	**$3,230.05**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**1,601.32**	**29,135.93**
Energy Consumed(kWh)		**397.35**	**8,547.37**
Co2 Emissions (lbs.)	**CV (Gas)**	**1,249.94**	**23,502.88**
	EV (Electricity)	**745.04**	**12,387.98**
	Total Fuel Saving	**504.90**	**11,114.89**
Co Emissions (lbs.)	**CV (Gas)**	**10.1005**	**204.9323**
	EV (Electricity)	**0.7072**	**10.5333**
	Total Fuel Saving	**9.3934**	**194.3990**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0148**	**0.3273**
	EV (Electricity)	**1.1430**	**26.9816**
	Total Fuel Saving	**(1.1282)**	**(26.6543)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.4236**	**9.5607**
	EV (Electricity)	**0.5844**	**18.7419**
	Total Fuel Saving	**(0.1608)**	**(9.1812)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0237**	**0.9909**
	EV (Electricity)	**0.0804**	**1.1009**
	Total Fuel Saving	**(0.0567)**	**(0.1100)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.5945**	**10.9460**
	EV (Electricity)	**0.0085**	**0.2048**
	Total Fuel Saving	**0.5860**	**10.7412**

Ashland (One Level-2 station):

Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**269.97**	**14,601.92**
Energy Consumed(kWh)		**66.99**	**4,332.76**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$39.94**	**$1,461.94**
	Usage Cost Using EV(Electricity)	**$5.92**	**$390.03**
	Total Fuel Saving	**$34.02**	**$1,071.91**
Other Cost Saving	**CV Costs**	**$16.47**	**$723.06**
	EV Costs	**$7.02**	**$262.49**
	Total Other Cost Saving	**$9.45**	**$460.57**
Overall Economic Savings		**$43.47**	**$1,532.48**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**269.97**	**14,601.92**
Energy Consumed (kWh)		**66.99**	**4,332.76**
Co2 Emissions (lbs.)	**CV (Gas)**	**210.73**	**11,786.45**
	EV (Electricity)	**125.61**	**6,375.16**
	Total Fuel Saving	**85.12**	**5,411.29**
Co Emissions (lbs.)	**CV (Gas)**	**1.7029**	**96.7392**
	EV (Electricity)	**0.1192**	**5.3701**
	Total Fuel Saving	**1.5837**	**91.3691**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0025**	**0.1487**
	EV (Electricity)	**0.1927**	**13.7804**
	Total Fuel Saving	**(0.1902)**	**(13.6317)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.0714**	**4.2999**
	EV (Electricity)	**0.0985**	**9.8797**
	Total Fuel Saving	**(0.0271)**	**(5.5798)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0040**	**0.4774**
	EV (Electricity)	**0.0136**	**0.5677**
	Total Fuel Saving	**(0.0096)**	**(0.0902)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.1002**	**5.4426**
	EV (Electricity)	**0.0014**	**0.1061**
	Total Fuel Saving	**0.0988**	**5.3365**

Bellevue

Economic Saving Data (Fuel & Maintenance Cost Savings):

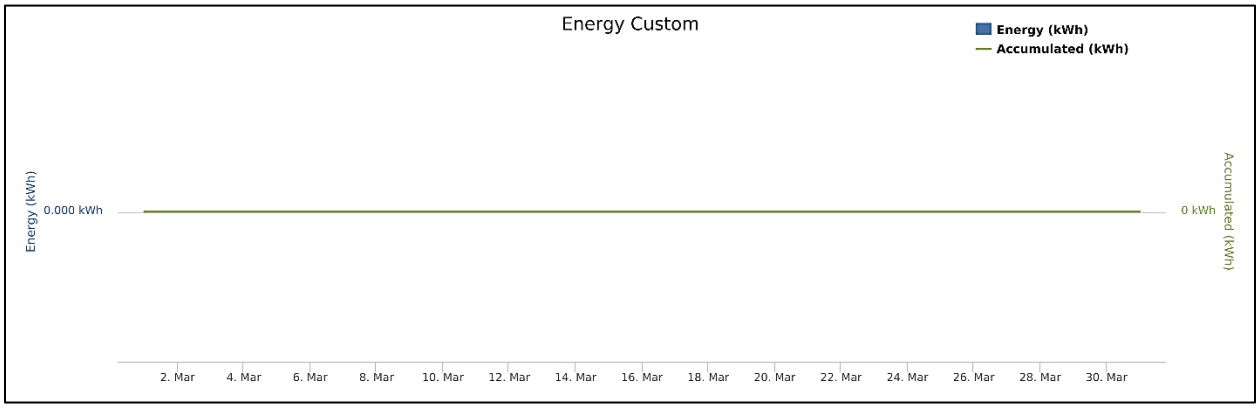
		This Month (March)	All Time
Miles Driven		**0.00**	**40,714.44**
Energy Consumed(kWh)		**0.00**	**12,079.62**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$0.00**	**$4,224.53**
	Usage Cost Using EV(Electricity)	**$0.00**	**$1,120.68**
	Total Fuel Saving	**$0.00**	**$3,103.85**
Other Cost Saving	**CV Costs**	**$0.00**	**$1,933.43**
	EV Costs	**$0.00**	**$1,078.36**
	Total Other Cost Saving	**$0.00**	**$855.07**
Overall Economic Savings		**$0.00**	**$3,958.93**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**0**	**40714.44179**
Energy Consumed (kWh)		**0**	**12079.624**
Co2 Emissions (lbs.)	**CV (Gas)**	**0.00**	**35,305.75**
	EV (Electricity)	**0.00**	**9,711.81**
	Total Fuel Saving	**0.00**	**25,593.94**
Co Emissions (lbs.)	**CV (Gas)**	**0.00**	**581.10**
	EV (Electricity)	**0.00**	**9.89**
	Total Fuel Saving	**0.00**	**571.21**
So2 Emissions (lbs.)	**CV (Gas)**	**0.00**	**1.26**
	EV (Electricity)	**0.00**	**34.95**
	Total Fuel Saving	**0.00**	**(33.69)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.00**	**39.19**
	EV (Electricity)	**0.00**	**20.72**
	Total Fuel Saving	**0.00**	**18.47**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.00**	**2.67**
	EV (Electricity)	**0.00**	**0.81**
	Total Fuel Saving	**0.00**	**1.87**
VOC Emissions (lbs.)	**CV (Gas)**	**0.00**	**17.16**
	EV (Electricity)	**0.00**	**0.25**
	Total Fuel Saving	**0.00**	**16.91**

Energy Consumption Data

March 2022



B & R Stores

Economic Saving Data (Fuel & Maintenance Cost Savings):

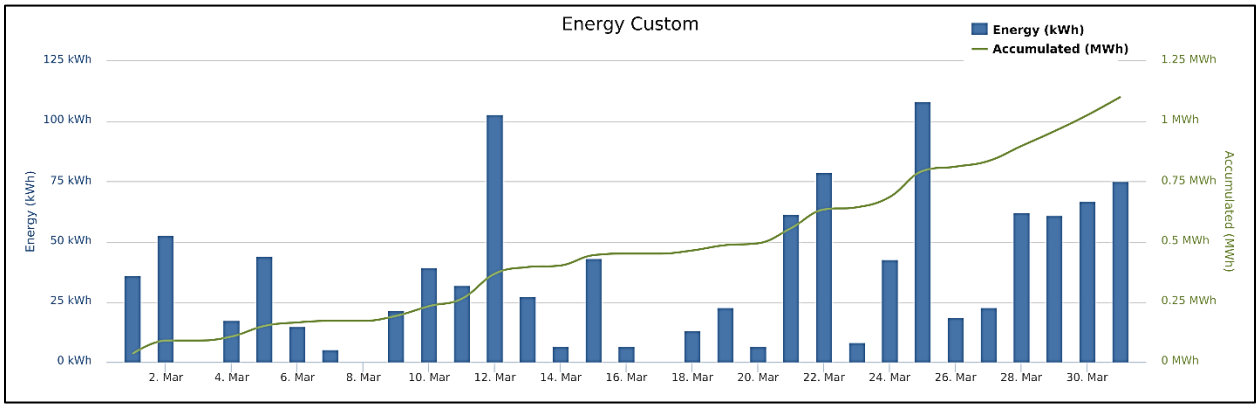
		This Month (March)	All Time
Miles Driven		**4,433.15**	**37,923.17**
Energy Consumed(kWh)		**1,100.04**	**10,678.85**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$662.75**	**$4,694.46**
	Usage Cost Using EV(Electricity)	**$98.23**	**$856.27**
	Total Fuel Saving	**$564.52**	**$3,838.18**
Other Cost Saving	**CV Costs**	**$270.42**	**$2,313.31**
	EV Costs	**$115.26**	**$986.00**
	Total Other Cost Saving	**$155.16**	**$1,327.31**
Overall Economic Savings		**$719.68**	**$5,165.49**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**4,433.15**	**37,923.17**
Energy Consumed (kWh)		**1,100.04**	**10,678.85**
Co2 Emissions (lbs.)	**CV (Gas)**	**3,460.37**	**29,601.60**
	EV (Electricity)	**3,105.32**	**24,938.47**
	Total Fuel Saving	**355.05**	**4,663.13**
Co Emissions (lbs.)	**CV (Gas)**	**27.9627**	**239.2056**
	EV (Electricity)	**1.9247**	**15.8064**
	Total Fuel Saving	**26.0380**	**223.3992**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0410**	**0.3511**
	EV (Electricity)	**3.5496**	**29.5008**
	Total Fuel Saving	**(3.5086)**	**(29.1497)**
Nox Emissions (lbs.)	**CV (Gas)**	**1.1728**	**10.0327**
	EV (Electricity)	**3.4920**	**27.8052**
	Total Fuel Saving	**(2.3192)**	**(17.7725)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0655**	**0.5602**
	EV (Electricity)	**0.2928**	**2.9412**
	Total Fuel Saving	**(0.2274)**	**(2.3810)**
VOC Emissions (lbs.)	**CV (Gas)**	**1.6458**	**14.0793**
	EV (Electricity)	**0.0353**	**0.2094**
	Total Fuel Saving	**1.6105**	**13.8699**

Energy Consumption Data

March 2022



B & R Stores (two DC stations)

Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**4,212.83**	**35,268.96**
Energy Consumed(kWh)		**1,045.37**	**9,942.55**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$629.81**	**$4,363.98**
	Usage Cost Using EV(Electricity)	**$93.35**	**$796.80**
	Total Fuel Saving	**$536.46**	**$3,567.18**
Other Cost Saving	**CV Costs**	**$256.98**	**$2,151.41**
	EV Costs	**$109.53**	**$916.99**
	Total Other Cost Saving	**$147.45**	**$1,234.41**
Overall Economic Savings		**$683.91**	**$4,801.60**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**4,212.83**	**35,268.96**
Energy Consumed (kWh)		**1,045.37**	**9,942.55**
Co2 Emissions (lbs.)	**CV (Gas)**	**3,288.40**	**27,529.81**
	EV (Electricity)	**2,950.99**	**23,178.82**
	Total Fuel Saving	**337.41**	**4,350.99**
Co Emissions (lbs.)	**CV (Gas)**	**26.5730**	**222.4638**
	EV (Electricity)	**1.8290**	**14.6943**
	Total Fuel Saving	**24.7440**	**207.7695**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0390**	**0.3266**
	EV (Electricity)	**3.3732**	**27.4285**
	Total Fuel Saving	**(3.3342)**	**(27.1020)**
Nox Emissions (lbs.)	**CV (Gas)**	**1.1145**	**9.3306**
	EV (Electricity)	**3.3185**	**25.8411**
	Total Fuel Saving	**(2.2039)**	**(16.5105)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0622**	**0.5210**
	EV (Electricity)	**0.2783**	**2.7392**
	Total Fuel Saving	**(0.2161)**	**(2.2182)**
VOC Emissions (lbs.)	**CV (Gas)**	**1.5640**	**3.2562**
	EV (Electricity)	**0.0336**	**0.0699**
	Total Fuel Saving	**1.5305**	**3.1863**

B & R Stores (two level 2 stations)

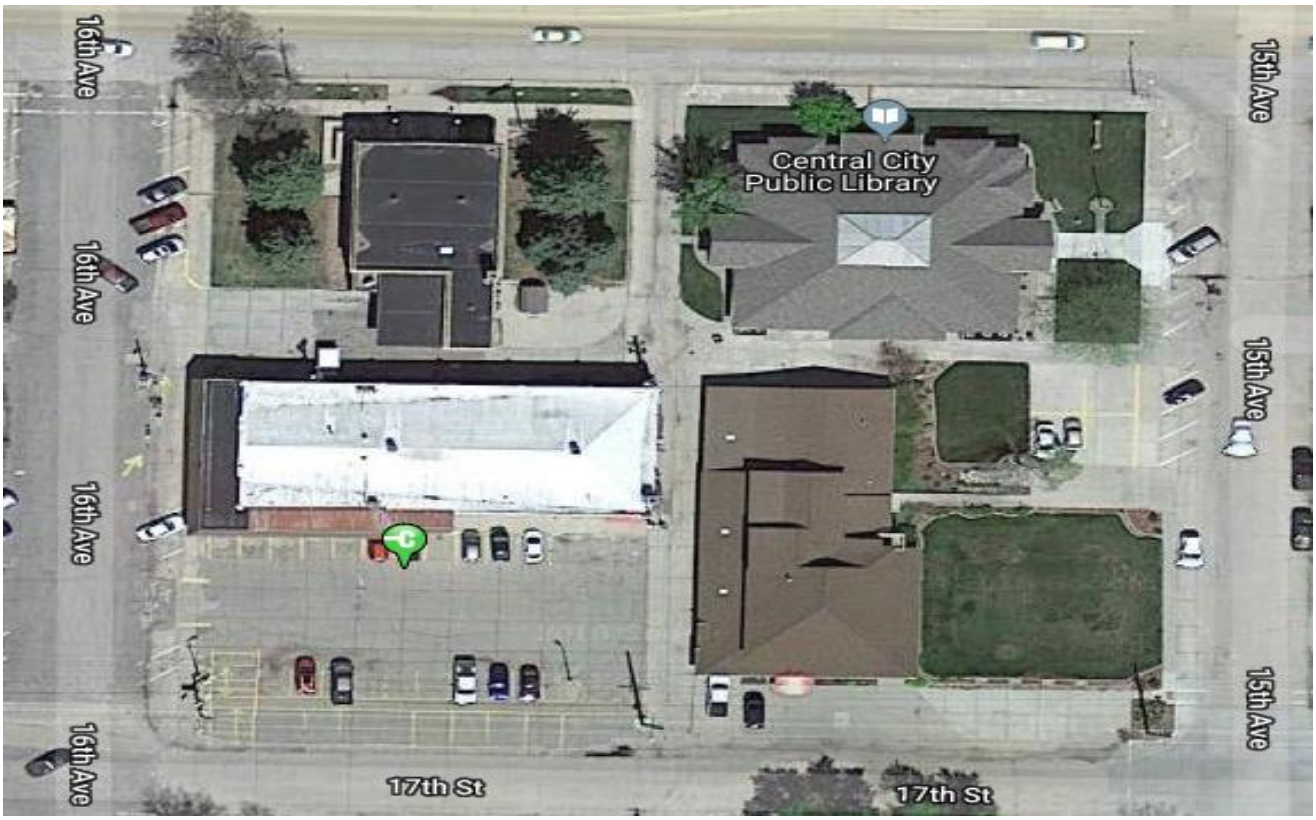
Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**220.32**	**2,654.21**
Energy Consumed(kWh)		**54.67**	**736.30**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$32.95**	**$330.47**
	Usage Cost Using EV(Electricity)	**$4.88**	**$59.48**
	Total Fuel Saving	**$28.06**	**$271.00**
Other Cost Saving	**CV Costs**	**$13.44**	**$161.91**
	EV Costs	**$5.73**	**$69.01**
	Total Other Cost Saving	**$7.71**	**$92.90**
Overall Economic Savings		**$35.77**	**$363.89**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**220.32**	**2,654.21**
Energy Consumed (kWh)		**54.67**	**736.30**
Co2 Emissions (lbs.)	**CV (Gas)**	**171.97**	**2,071.79**
	EV (Electricity)	**154.33**	**1,759.65**
	Total Fuel Saving	**17.65**	**312.14**
Co Emissions (lbs.)	**CV (Gas)**	**1.39**	**16.74**
	EV (Electricity)	**0.10**	**1.11**
	Total Fuel Saving	**1.2940**	**15.6298**
So2 Emissions (lbs.)	**CV (Gas)**	**0.00**	**0.02**
	EV (Electricity)	**0.18**	**2.07**
	Total Fuel Saving	**(0.1744)**	**(2.0477)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.06**	**0.70**
	EV (Electricity)	**0.17**	**1.96**
	Total Fuel Saving	**(0.1153)**	**(1.2620)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.00**	**0.04**
	EV (Electricity)	**0.01**	**0.20**
	Total Fuel Saving	**(0.0113)**	**(0.1628)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.08**	**10.82**
	EV (Electricity)	**0.00**	**0.14**
	Total Fuel Saving	**0.0800**	**10.6836**

Central City



Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**0.00**	**1,773.37**
Energy Consumed(kWh)		**0.00**	**522.08**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$0.00**	**$188.58**
	Usage Cost Using EV(Electricity)	**$0.00**	**$51.92**
	Total Fuel Saving	**$0.00**	**$136.66**
Other Cost Saving	**CV Costs**	**$0.00**	**$89.44**
	EV Costs	**$0.00**	**$63.39**
	Total Other Cost Saving	**$0.00**	**$26.05**
Overall Economic Savings		**$0.00**	**$162.71**

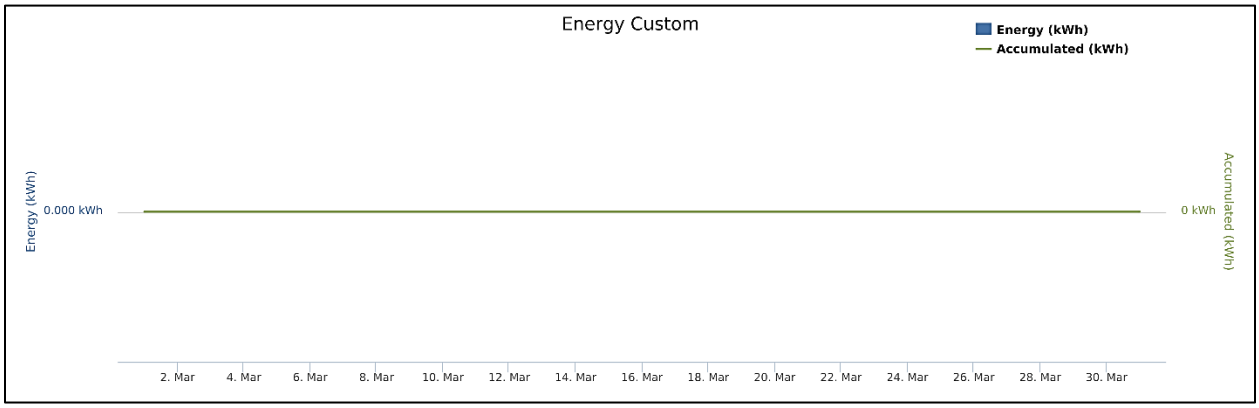
*Data was provided from the electrical car mileage

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**0.00**	**1,773.37**
Energy Consumed (kWh)		**0.00**	**522.08**
Co2 Emissions (lbs.)	**CV (Gas)**	**0.00**	**1,536.18**
	EV (Electricity)	**0.00**	**272.13**
	Total Fuel Saving	**0.00**	**1,264.05**
Co Emissions (lbs.)	**CV (Gas)**	**0.0000**	**31.6729**
	EV (Electricity)	**0.0000**	**0.2370**
	Total Fuel Saving	**0.0000**	**31.4360**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0000**	**0.0032**
	EV (Electricity)	**0.0000**	**1.1869**
	Total Fuel Saving	**0.0000**	**(1.1836)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.0000**	**2.2643**
	EV (Electricity)	**0.0000**	**0.6715**
	Total Fuel Saving	**0.0000**	**1.5928**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0000**	**0.1387**
	EV (Electricity)	**0.0000**	**0.0093**
	Total Fuel Saving	**0.0000**	**0.1294**
VOC Emissions (lbs.)	**CV (Gas)**	**0.0000**	**0.7871**
	EV (Electricity)	**0.0000**	**0.0087**
	Total Fuel Saving	**0.0000**	**0.7784**

Energy Consumption Data

March 2022



(Data was provided from the electrical car mileage)

Central Community College

Economic Saving Data (Fuel & Maintenance Cost Savings):

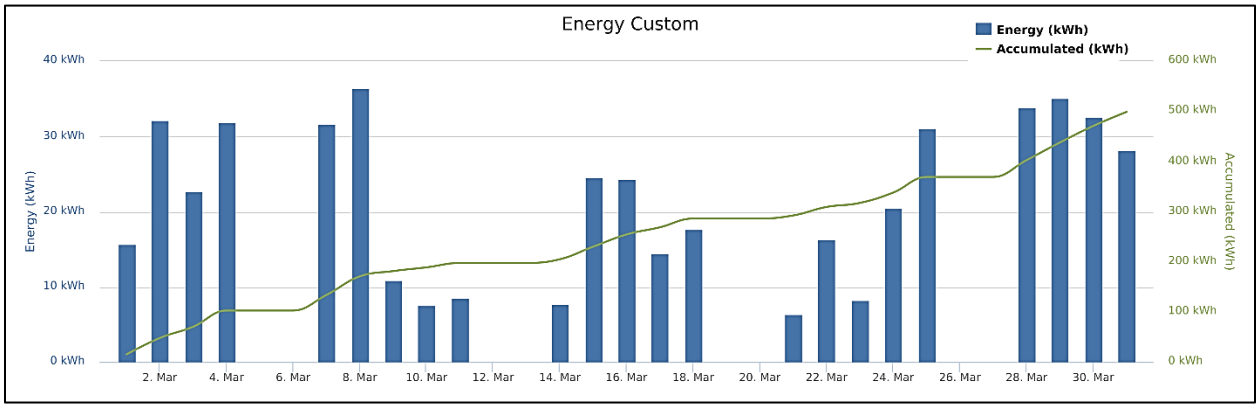
		This Month (March)	All Time
Miles Driven		**2,008.89**	**13,253.53**
Energy Consumed(kWh)		**498.49**	**3,749.88**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$299.17**	**$1,645.01**
	Usage Cost Using EV(Electricity)	**$34.40**	**$298.66**
	Total Fuel Saving	**$264.77**	**$1,346.35**
Other Cost Saving	**CV Costs**	**$122.54**	**$808.47**
	EV Costs	**$52.23**	**$344.59**
	Total Other Cost Saving	**$70.31**	**$463.87**
Overall Economic Savings		**$335.08**	**$1,810.22**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**2,008.89**	**13,253.53**
Energy Consumed (kWh)		**498.49**	**3,749.88**
Co2 Emissions (lbs.)	**CV (Gas)**	**1,568.08**	**10,345.28**
	EV (Electricity)	**344.26**	**5,035.53**
	Total Fuel Saving	**1,223.82**	**5,309.75**
Co Emissions (lbs.)	**CV (Gas)**	**12.6714**	**83.5985**
	EV (Electricity)	**0.3090**	**3.4979**
	Total Fuel Saving	**12.3623**	**80.1006**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0186**	**0.1227**
	EV (Electricity)	**0.7556**	**9.3921**
	Total Fuel Saving	**(0.7370)**	**(9.2693)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.5315**	**3.5063**
	EV (Electricity)	**0.5250**	**14.9252**
	Total Fuel Saving	**0.0064**	**(11.4189)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0297**	**0.1958**
	EV (Electricity)	**0.0347**	**0.4167**
	Total Fuel Saving	**(0.0050)**	**(0.2209)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.7458**	**4.9205**
	EV (Electricity)	**0.0048**	**0.0862**
	Total Fuel Saving	**0.7410**	**4.8343**

Energy Consumption Data

March 2022



Dakota County

Economic Saving Data (Fuel & Maintenance Cost Savings):

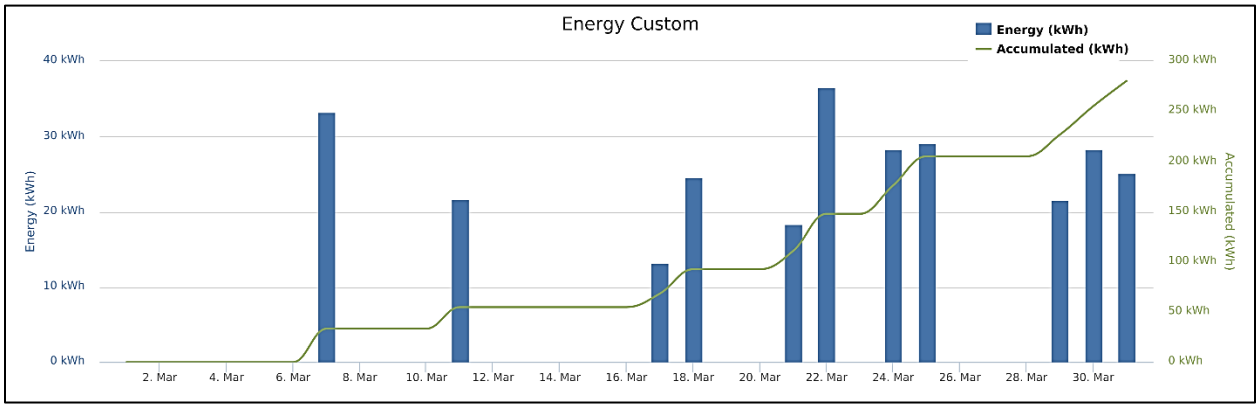
		This Month (March)	All Time
Miles Driven		**1,128.83**	**22,771.91**
Energy Consumed(kWh)		**280.11**	**6,572.73**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$167.99**	**$2,497.92**
	Usage Cost Using EV(Electricity)	**$23.89**	**$545.91**
	Total Fuel Saving	**$144.10**	**$1,952.01**
Other Cost Saving	**CV Costs**	**$68.86**	**$1,257.30**
	EV Costs	**$29.35**	**$536.26**
	Total Other Cost Saving	**$39.51**	**$721.05**
Overall Economic Savings		**$183.61**	**$2,673.06**

Environmental Saving Data (Reduction in Emissions):

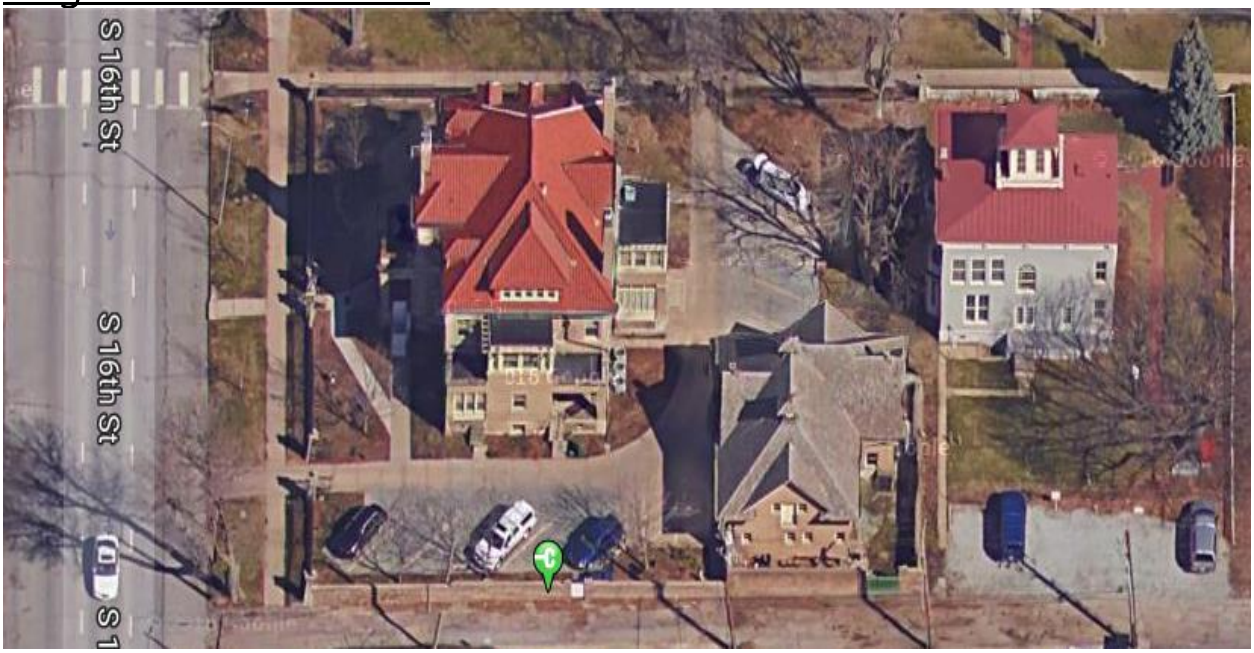
		This Month (March)	All Time
Miles Driven		**1,128.83**	**22,771.91**
Energy Consumed (kWh)		**280.11**	**6,572.73**
Co2 Emissions (lbs.)	**CV (Gas)**	**881.13**	**18,395.23**
	EV (Electricity)	**193.44**	**7,747.84**
	Total Fuel Saving	**687.69**	**10,647.38**
Co Emissions (lbs.)	**CV (Gas)**	**7.1203**	**181.1632**
	EV (Electricity)	**0.1737**	**5.7871**
	Total Fuel Saving	**6.9466**	**175.3761**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0105**	**0.3129**
	EV (Electricity)	**0.4246**	**16.3881**
	Total Fuel Saving	**(0.4141)**	**(16.0752)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.2986**	**9.3127**
	EV (Electricity)	**0.2950**	**23.0803**
	Total Fuel Saving	**0.0036**	**(13.7676)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0167**	**0.6655**
	EV (Electricity)	**0.0195**	**0.6032**
	Total Fuel Saving	**(0.0028)**	**0.0623**
VOC Emissions (lbs.)	**CV (Gas)**	**0.4191**	**8.6901**
	EV (Electricity)	**0.0027**	**0.1340**
	Total Fuel Saving	**0.4164**	**8.5562**

Energy Consumption Data

March 2022



Ferguson House Station



Economic Saving Data (Fuel & Maintenance Cost Savings):

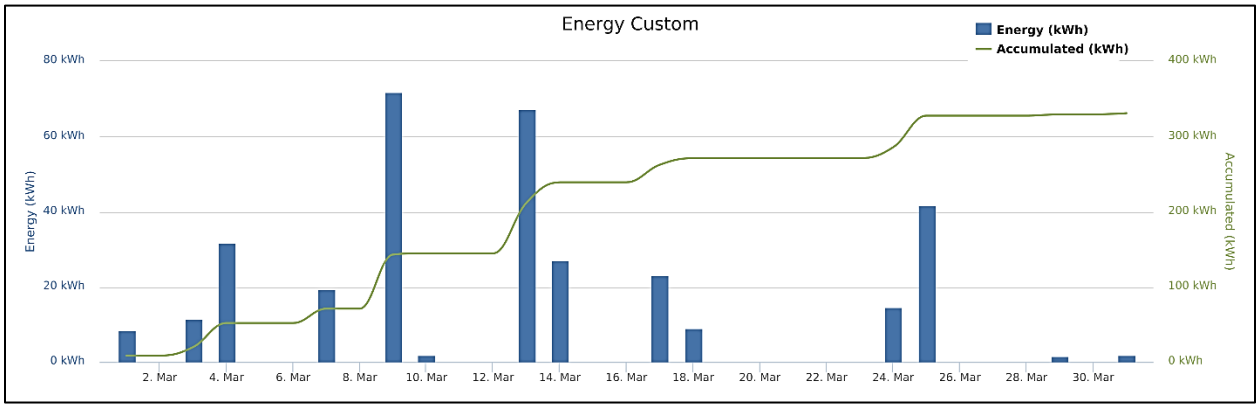
		This Month (March)	All Time
Miles Driven		**1,333.39**	**23,189.80**
Energy Consumed(kWh)		**330.87**	**6,693.02**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$199.77**	**$2,572.19**
	Usage Cost Using EV(Electricity)	**$24.58**	**$497.31**
	Total Fuel Saving	**$175.19**	**$2,074.88**
Other Cost Saving	**CV Costs**	**$81.34**	**$1,241.63**
	EV Costs	**$34.67**	**$573.80**
	Total Other Cost Saving	**$46.67**	**$667.83**
Overall Economic Savings		**$221.86**	**$2,742.70**

Environmental Saving Data (Reduction in Emissions):

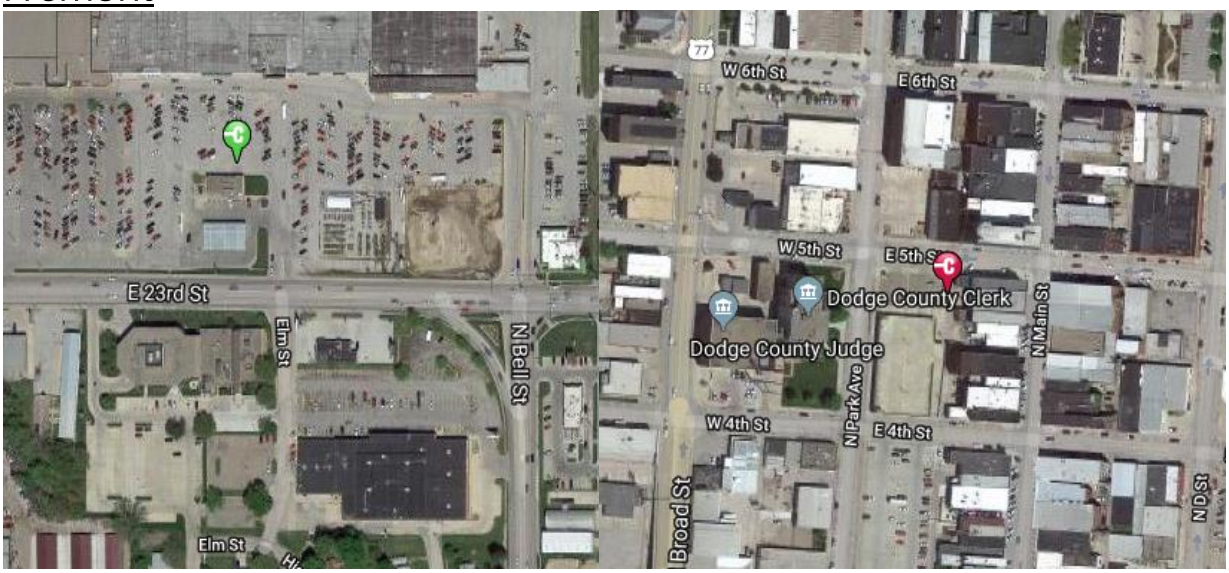
		This Month (March)	All Time
Miles Driven		**1,333.39**	**23,189.80**
Energy Consumed (kWh)		**330.87**	**6,693.02**
Co2 Emissions (lbs.)	**CV (Gas)**	**1,040.80**	**19,034.43**
	EV (Electricity)	**896.13**	**9,265.89**
	Total Fuel Saving	**144.67**	**9,768.55**
Co Emissions (lbs.)	**CV (Gas)**	**8.4105**	**222.4444**
	EV (Electricity)	**0.3260**	**4.4021**
	Total Fuel Saving	**8.0845**	**218.0423**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0123**	**0.4222**
	EV (Electricity)	**0.3530**	**8.1323**
	Total Fuel Saving	**(0.3406)**	**(7.7101)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.3528**	**12.8096**
	EV (Electricity)	**3.1755**	**29.4795**
	Total Fuel Saving	**(2.8227)**	**(16.6699)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0197**	**0.8907**
	EV (Electricity)	**0.0366**	**0.3809**
	Total Fuel Saving	**(0.0169)**	**0.5098**
VOC Emissions (lbs.)	**CV (Gas)**	**0.4950**	**9.0885**
	EV (Electricity)	**0.0081**	**0.1704**
	Total Fuel Saving	**0.4869**	**8.9180**

Energy Consumption Data

March 2022



Fremont



Economic Saving Data (Fuel & Maintenance Cost Savings):

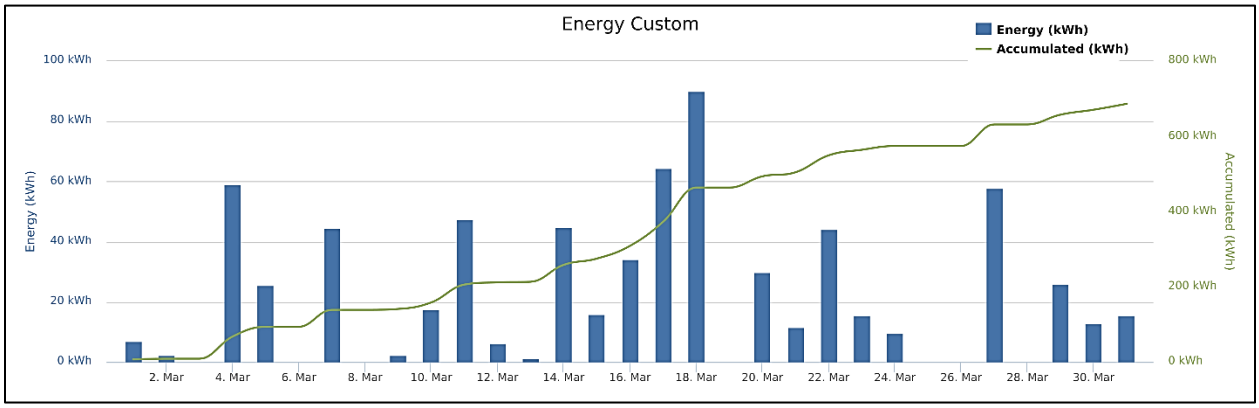
		This Month (March)	All Time
Miles Driven		**2,764.85**	**96,220.92**
Energy Consumed(kWh)		**686.07**	**28,086.51**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$407.96**	**$10,385.56**
	Usage Cost Using EV(Electricity)	**$67.58**	**$2,879.48**
	Total Fuel Saving	**$340.38**	**$7,506.08**
Other Cost Saving	**CV Costs**	**$168.66**	**$5,161.00**
	EV Costs	**$71.89**	**$1,870.27**
	Total Other Cost Saving	**$96.77**	**$3,290.72**
Overall Economic Savings		**$437.15**	**$10,796.80**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**2,764.85**	**96,220.92**
Energy Consumed (kWh)		**686.07**	**28,086.51**
Co2 Emissions (lbs.)	**CV (Gas)**	**2,158.1528**	**77,554.2428**
	EV (Electricity)	**713.4090**	**42,754.5020**
	Total Fuel Saving	**1,444.7438**	**34,799.7408**
Co Emissions (lbs.)	**CV (Gas)**	**17.4397**	**606.9267**
	EV (Electricity)	**1.1297**	**48.4735**
	Total Fuel Saving	**16.3099**	**558.4533**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0256**	**0.8909**
	EV (Electricity)	**1.2324**	**67.7696**
	Total Fuel Saving	**(1.2068)**	**(66.8786)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.7315**	**25.4557**
	EV (Electricity)	**0.7313**	**50.2769**
	Total Fuel Saving	**0.0001**	**(24.8212)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0408**	**2.3211**
	EV (Electricity)	**0.1208**	**6.6961**
	Total Fuel Saving	**(0.0800)**	**(4.3750)**
VOC Emissions (lbs.)	**CV (Gas)**	**1.0265**	**35.7228**
	EV (Electricity)	**0.0177**	**0.5659**
	Total Fuel Saving	**1.0088**	**35.1569**

Energy Consumption Data

March 2022



Gothenburg

AFV: One Nissan Leaf Car
Charging stations: 0
The price of electricity per kWh: $0.082
NOTE:
Data is calculated based on Mileage provided (7,882 Miles as of March 3, 2018.)

Total CO2 emission reductions is 6,020.03 lbs.
Total CO reduction is 155.11 lbs.
Total SO2 reduction is (5.30 lbs.)
Total NOx reduction is 8.68 lbs.
Total CH4 reduction is 0.6359 lbs.
Total VOC reduction is 3.556 lbs.
Total Cost benefits savings $719.928

Gretna

Economic Saving Data (Fuel & Maintenance Cost Savings):

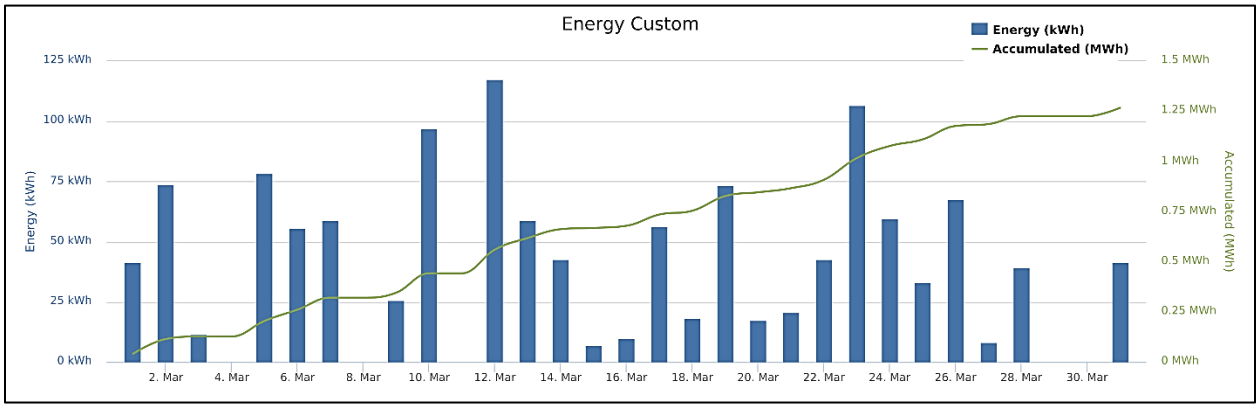
		This Month (March)	All Time
Miles Driven		**5,101.83**	**107,984.72**
Energy Consumed(kWh)		**1265.964**	**31,231.70**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$746.69**	**$11,755.95**
	Usage Cost Using EV(Electricity)	**$111.85**	**$2,737.99**
	Total Fuel Saving	**$634.84**	**$9,017.96**
Other Cost Saving	**CV Costs**	**$311.21**	**$6,042.36**
	EV Costs	**$132.65**	**$2,515.05**
	Total Other Cost Saving	**$178.56**	**$3,527.31**
Overall Economic Savings		**$813.41**	**$12,545.27**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**5,101.83**	**107,984.72**
Energy Consumed (Kwh)		**1,265.96**	**31,231.70**
Co2 Emissions (lbs.)	**CV (Gas)**	**3,982.33**	**86,216.56**
	EV (Electricity)	**2,373.70**	**48,707.82**
	Total Fuel Saving	**1,608.62**	**37,508.73**
Co Emissions (lbs.)	**CV (Gas)**	**32.1805**	**773.6660**
	EV (Electricity)	**2.2530**	**39.9138**
	Total Fuel Saving	**29.9275**	**733.7523**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0472**	**1.2516**
	EV (Electricity)	**3.6416**	**90.2548**
	Total Fuel Saving	**(3.5944)**	**(89.0032)**
Nox Emissions (lbs.)	**CV (Gas)**	**1.3497**	**36.6758**
	EV (Electricity)	**1.8620**	**67.4365**
	Total Fuel Saving	**(0.5123)**	**(30.7607)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0754**	**2.7351**
	EV (Electricity)	**0.2561**	**4.4828**
	Total Fuel Saving	**(0.1808)**	**(1.7477)**
VOC Emissions (lbs.)	**CV (Gas)**	**1.8941**	**36.2395**
	EV (Electricity)	**0.0270**	**0.7688**
	Total Fuel Saving	**1.8671**	**35.4707**

Energy Consumption Data

March 2022



Gretna (Fast DC charging):

Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**4,431.05**	**71,830.27**
Energy Consumed(kWh)		**1,099.52**	**20,546.84**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$649.27**	**$8,009.52**
	Usage Cost Using EV(Electricity)	**$97.14**	**$1,769.46**
	Total Fuel Saving	**$552.13**	**$6,240.06**
Other Cost Saving	**CV Costs**	**$270.29**	**$4,223.76**
	EV Costs	**$115.21**	**$1,726.86**
	Total Other Cost Saving	**$155.09**	**$2,496.90**
Overall Economic Savings		**$707.22**	**$8,736.96**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**4,431.05**	**71,830.27**
Energy Consumed (kWh)		**1,099.52**	**20,546.84**
Co2 Emissions (lbs.)	**CV (Gas)**	**3,458.73**	**56,613.78**
	EV (Electricity)	**2,061.61**	**34,677.54**
	Total Fuel Saving	**1,397.12**	**21,936.25**
Co Emissions (lbs.)	**CV (Gas)**	**27.9494**	**453.0794**
	EV (Electricity)	**1.9568**	**28.0988**
	Total Fuel Saving	**25.9926**	**424.9806**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0410**	**0.6651**
	EV (Electricity)	**3.1628**	**57.8126**
	Total Fuel Saving	**(3.1218)**	**(57.1475)**
Nox Emissions (lbs.)	**CV (Gas)**	**1.1723**	**19.0030**
	EV (Electricity)	**1.6172**	**45.0747**
	Total Fuel Saving	**(0.4449)**	**(26.0717)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0655**	**1.2615**
	EV (Electricity)	**0.2224**	**3.2857**
	Total Fuel Saving	**(0.1570)**	**(2.0241)**
VOC Emissions (lbs.)	**CV (Gas)**	**1.6451**	**26.6676**
	EV (Electricity)	**0.0235**	**0.5197**
	Total Fuel Saving	**1.6216**	**26.1479**

Gretna (Two Level-2 stations):

Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**670.79**	**36,154.45**
Energy Consumed(kWh)		**166.45**	**10,684.86**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$97.42**	**$3,746.43**
	Usage Cost Using EV(Electricity)	**$14.71**	**$968.53**
	Total Fuel Saving	**$82.71**	**$2,777.90**
Other Cost Saving	**CV Costs**	**$40.92**	**$1,818.60**
	EV Costs	**$17.44**	**$788.19**
	Total Other Cost Saving	**$23.48**	**$1,030.41**
Overall Economic Savings		**$106.19**	**$3,808.31**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**670.79**	**36,154.45**
Energy Consumed (kWh)		**166.45**	**10,684.86**
Co2 Emissions (lbs.)	**CV (Gas)**	**523.60**	**29,602.77**
	EV (Electricity)	**312.09**	**14,030.28**
	Total Fuel Saving	**211.50**	**15,572.49**
Co Emissions (lbs.)	**CV (Gas)**	**4.2311**	**320.5866**
	EV (Electricity)	**0.2962**	**11.8149**
	Total Fuel Saving	**3.9349**	**308.7717**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0062**	**0.5865**
	EV (Electricity)	**0.4788**	**32.4423**
	Total Fuel Saving	**(0.4726)**	**(31.8558)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.1775**	**17.6728**
	EV (Electricity)	**0.2448**	**22.3618**
	Total Fuel Saving	**(0.0674)**	**(4.6890)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0099**	**1.4736**
	EV (Electricity)	**0.0337**	**1.1972**
	Total Fuel Saving	**(0.0238)**	**0.2764**
VOC Emissions (lbs.)	**CV (Gas)**	**0.2490**	**9.5720**
	EV (Electricity)	**0.0036**	**0.2491**
	Total Fuel Saving	**0.2455**	**9.3228**

Hastings

Economic Saving Data (Fuel & Maintenance Cost Savings):

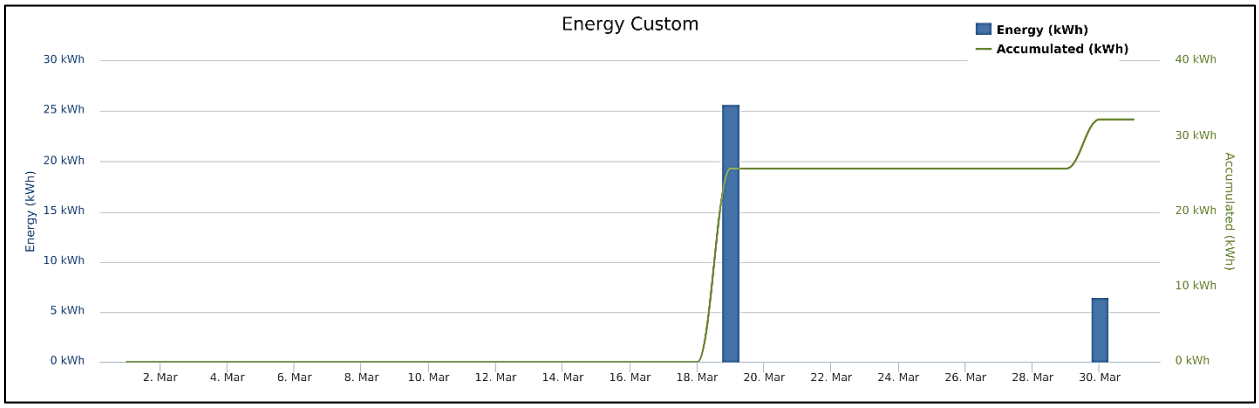
		This Month (March)	All Time
Miles Driven		**129.87**	**5196.96**
Energy Consumed(kWh)		**32.23**	**1528.85**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$19.82**	**$571.85**
	Usage Cost Using EV(Electricity)	**$2.88**	**$119.12**
	Total Fuel Saving	**$16.94**	**$452.72**
Other Cost Saving	**CV Costs**	**$7.92**	**$273.56**
	EV Costs	**$3.38**	**$109.27**
	Total Other Cost Saving	**$4.55**	**$164.29**
Overall Economic Savings		**$21.49**	**$617.01**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**129.87**	**5,196.96**
Energy Consumed (kWh)		**32.23**	**1,528.85**
Co2 Emissions (lbs.)	**CV (Gas)**	**101.37**	**4,193.82**
	EV (Electricity)	**90.97**	**2,961.64**
	Total Fuel Saving	**10.40**	**1,232.17**
Co Emissions (lbs.)	**CV (Gas)**	**0.8192**	**38.1173**
	EV (Electricity)	**0.0564**	**2.2373**
	Total Fuel Saving	**0.7628**	**35.8800**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0012**	**0.0626**
	EV (Electricity)	**0.1040**	**4.0551**
	Total Fuel Saving	**(0.1028)**	**(3.9925)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.0344**	**1.8424**
	EV (Electricity)	**0.1023**	**2.6142**
	Total Fuel Saving	**(0.0679)**	**(0.7718)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0019**	**0.1599**
	EV (Electricity)	**0.0086**	**0.2155**
	Total Fuel Saving	**(0.0067)**	**(0.0556)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.0482**	**1.9626**
	EV (Electricity)	**0.0010**	**0.0303**
	Total Fuel Saving	**0.0472**	**1.9323**

Energy Consumption Data

March 2022



City of Holdrege

Economic Saving Data (Fuel & Maintenance Cost Savings):

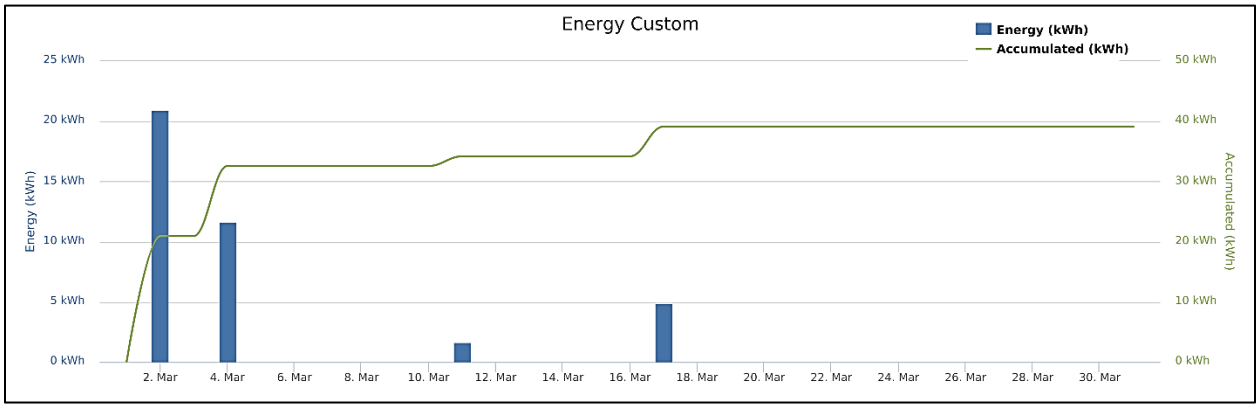
		This Month (March)	All Time
Miles Driven		**157.58**	**5,397.89**
Energy Consumed(kWh)		**39.10**	**1,558.51**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$22.10**	**$623.82**
	Usage Cost Using EV(Electricity)	**$3.68**	**$147.41**
	Total Fuel Saving	**$18.43**	**$476.41**
Other Cost Saving	**CV Costs**	**$9.61**	**$300.81**
	EV Costs	**$4.10**	**$135.91**
	Total Other Cost Saving	**$5.52**	**$164.89**
Overall Economic Savings		**$23.94**	**$641.30**

Environmental Saving Data (Reduction in Emissions):

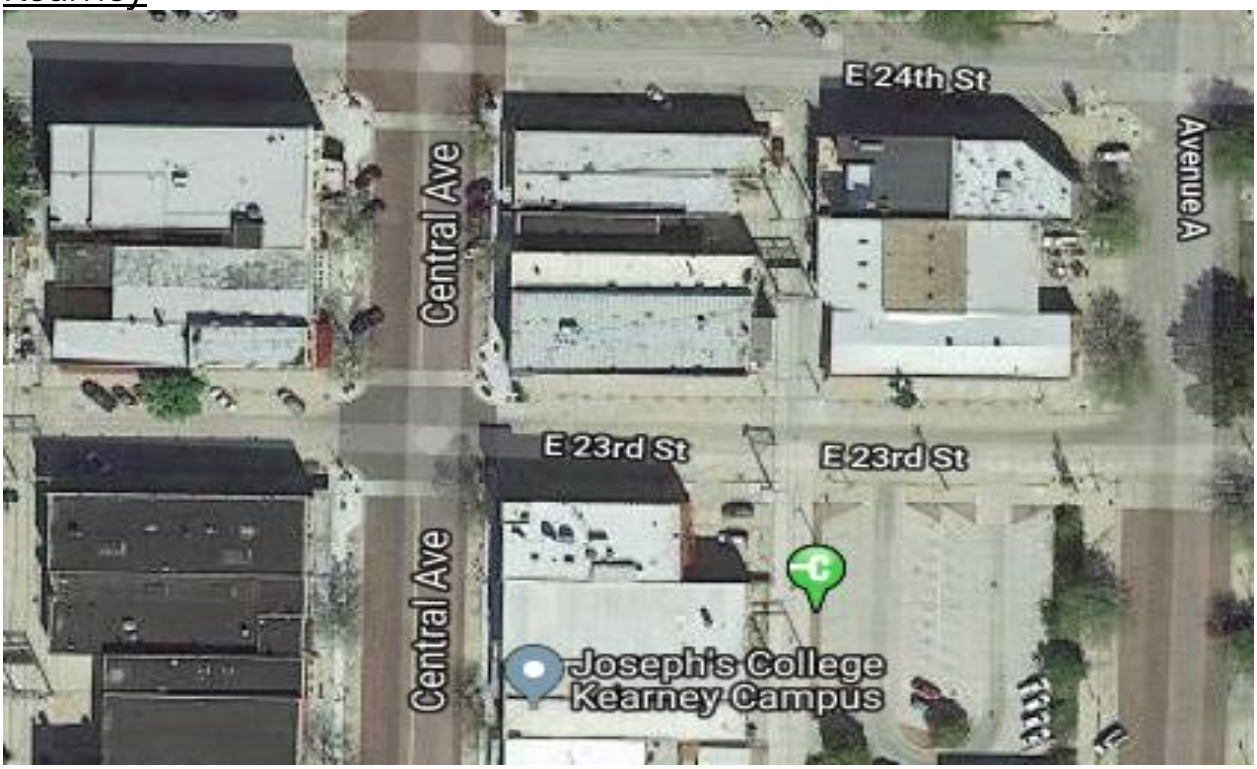
		This Month (March)	All Time
Miles Driven		**157.58**	**5,397.89**
Energy Consumed (kWh)		**39.10**	**1,558.51**
Co2 Emissions (lbs.)	**CV (Gas)**	**123.00**	**4,331.17**
	EV (Electricity)	**27.00**	**1,812.40**
	Total Fuel Saving	**96.00**	**2,518.77**
Co Emissions (lbs.)	**CV (Gas)**	**0.9939**	**44.8559**
	EV (Electricity)	**0.0242**	**1.3071**
	Total Fuel Saving	**0.9697**	**43.5488**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0015**	**0.0794**
	EV (Electricity)	**0.0593**	**3.8156**
	Total Fuel Saving	**(0.0578)**	**(3.7362)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.0417**	**2.3751**
	EV (Electricity)	**0.0412**	**5.2187**
	Total Fuel Saving	**0.0005**	**(2.8436)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0023**	**0.1663**
	EV (Electricity)	**0.0027**	**0.1347**
	Total Fuel Saving	**(0.0004)**	**0.0315**
VOC Emissions (lbs.)	**CV (Gas)**	**0.0585**	**2.0717**
	EV (Electricity)	**0.0004**	**0.0316**
	Total Fuel Saving	**0.0581**	**2.0401**

Energy Consumption Data

March 2022



Kearney



Economic Saving Data (Fuel & Maintenance Cost Savings):

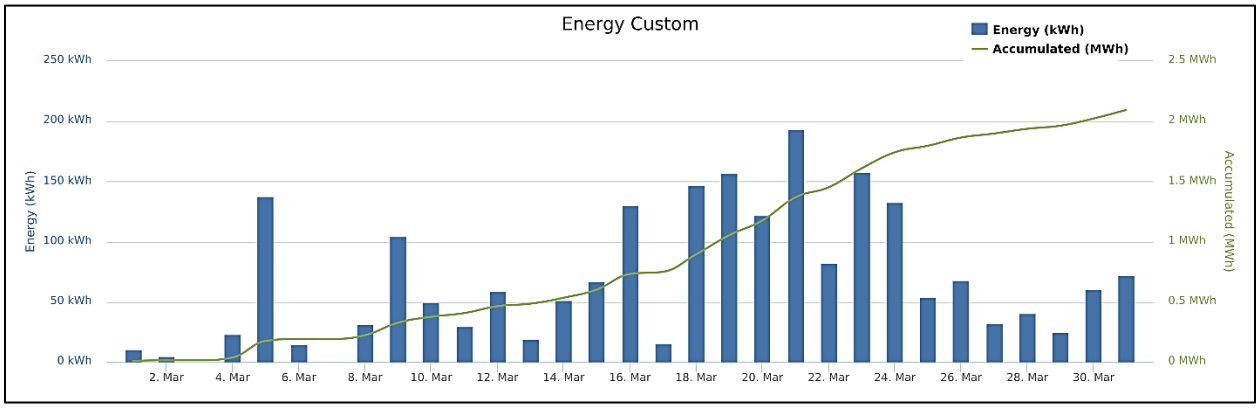
		This Month (March)	All Time
Miles Driven		**8,443.55**	**109,559.55**
Energy Consumed(kWh)		**2,095.17**	**31,674.64**
Fuel Cost Caving	**Usage Cost Using CV(Gas)**	**$1,303.02**	**$12,543.89**
	Usage Cost Using EV(Electricity)	**$178.72**	**$2,721.80**
	Total Fuel Saving	**$1,124.30**	**$9,822.09**
Other Cost Saving	**CV Costs**	**$515.06**	**$5,975.60**
	EV Costs	**$219.53**	**$2,508.59**
	Total Other Cost Saving	**$295.52**	**$3,467.00**
Overall Economic Savings		**$1,419.82**	**$13,289.09**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**8,443.55**	**109,559.55**
Energy Consumed (kWh)		**2,095.17**	**31,674.64**
Co2 Emissions (lbs.)	**CV (Gas)**	**6,590.76**	**87,764.47**
	EV (Electricity)	**1,446.94**	**37,543.42**
	Total Fuel Saving	**5,143.83**	**50,221.04**
Co Emissions (lbs.)	**CV (Gas)**	**53.2589**	**816.3539**
	EV (Electricity)	**1.2989**	**27.4972**
	Total Fuel Saving	**51.9600**	**788.8567**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0782**	**1.3553**
	EV (Electricity)	**3.1759**	**76.5808**
	Total Fuel Saving	**(3.0977)**	**(75.2256)**
Nox Emissions (lbs.)	**CV (Gas)**	**2.2338**	**39.9618**
	EV (Electricity)	**2.2068**	**108.4528**
	Total Fuel Saving	**0.0270**	**(68.4910)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.1247**	**3.1590**
	EV (Electricity)	**0.1457**	**2.8138**
	Total Fuel Saving	**(0.0210)**	**0.3452**
VOC Emissions (lbs.)	**CV (Gas)**	**3.1347**	**41.4558**
	EV (Electricity)	**0.0202**	**0.6233**
	Total Fuel Saving	**3.1146**	**40.8326**

Energy Consumption Data

March 2022



Kearney (Fast DC charging):

Economic Saving Data (Fuel & Maintenance Cost Savings):

YOUNES NORTH& NORTH2		This Month (October)	All Time
Miles Driven		3,023.48	12,096.36
Energy Consumed(kWh)		750.24	3,293.30
Fuel Cost Caving	Usage Cost Using CV(Gas)	471.94	1,586.97
	Usage Cost Using EV(Electricity)	64.00	280.92
	Total Fuel Saving	407.95	1,306.05
Other Cost Saving	CV Costs	184.43	737.88
	EV Costs	78.61	314.51
	Total Other Cost Saving	105.82	423.37
Overall Economic Savings		513.77	1,729.42

Environmental Saving Data (Reduction in Emissions):

YOUNES NORTH& NORTH2		This Month (October)	All Time
Miles Driven		3,023.48	12,096.36
Energy Consumed (kWh)		750.24	3,293.30
Co2 Emissions (lbs.)	CV (Gas)	2,360.034	9,442.030
	EV (Electricity)	518.122	3,821.554
	Total Fuel Saving	1,841.911	5,620.476
Co Emissions (lbs.)	CV (Gas)	19.071	76.299
	EV (Electricity)	0.465	2.784
	Total Fuel Saving	18.606	73.516
So2 Emissions (lbs.)	CV (Gas)	0.028	0.112
	EV (Electricity)	1.137	7.338
	Total Fuel Saving	-1.109	-7.226
Nox Emissions (lbs.)	CV (Gas)	0.800	3.200
	EV (Electricity)	0.790	10.412
	Total Fuel Saving	0.010	-7.211
CH4 Emissions (lbs.)	CV (Gas)	0.045	0.179
	EV (Electricity)	0.052	0.328
	Total Fuel Saving	-0.008	-0.149
VOC Emissions (lbs.)	CV (Gas)	1.122	4.491
	EV (Electricity)	0.007	0.063
	Total Fuel Saving	1.115	4.427

Kearney (Level-2 stations):

Economic Saving Data (Fuel & Maintenance Cost Savings):

-		This Month (October)	All Time
Miles Driven		**5,420.07**	**97,463.19**
Energy Consumed(kWh)		**1,344.93**	**28,381.34**
Fuel Cost Caving	**Usage Cost Using CV(Gas)**	**831.07**	**10,956.92**
	Usage Cost Using EV(Electricity)	**114.72**	**2,440.88**
	Total Fuel Saving	**716.35**	**8,516.04**
Other Cost Saving	**CV Costs**	**330.62**	**5,237.72**
	EV Costs	**140.92**	**2,194.09**
	Total Other Cost Saving	**189.70**	**3,043.63**
Overall Economic Savings		**906.05**	**11,559.67**

Environmental Saving Data (Reduction in Emissions):

-		This Month (October)	All Time
Miles Driven		**5,420.07**	**97,463.19**
Energy Consumed (kWh)		**1,344.93**	**28,381.34**
Co2 Emissions (lbs.)	**CV (Gas)**	**4,230.73**	**78,322.44**
	EV (Electricity)	**928.82**	**33,721.87**
	Total Fuel Saving	**3,301.91**	**44,600.57**
Co Emissions (lbs.)	**CV (Gas)**	**34.19**	**740.05**
	EV (Electricity)	**0.83**	**24.71**
	Total Fuel Saving	**33.35**	**715.34**
So2 Emissions (lbs.)	**CV (Gas)**	**0.05**	**1.24**
	EV (Electricity)	**2.04**	**69.24**
	Total Fuel Saving	**(1.99)**	**(68.00)**
Nox Emissions (lbs.)	**CV (Gas)**	**1.43**	**36.76**
	EV (Electricity)	**1.42**	**98.04**
	Total Fuel Saving	**0.02**	**(61.28)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.08**	**2.98**
	EV (Electricity)	**0.09**	**2.49**
	Total Fuel Saving	**(0.01)**	**0.49**
VOC Emissions (lbs.)	**CV (Gas)**	**2.01**	**36.96**
	EV (Electricity)	**0.01**	**0.56**
	Total Fuel Saving	**2.00**	**36.41**

LES

Economic Saving Data (Fuel & Maintenance Cost Savings):

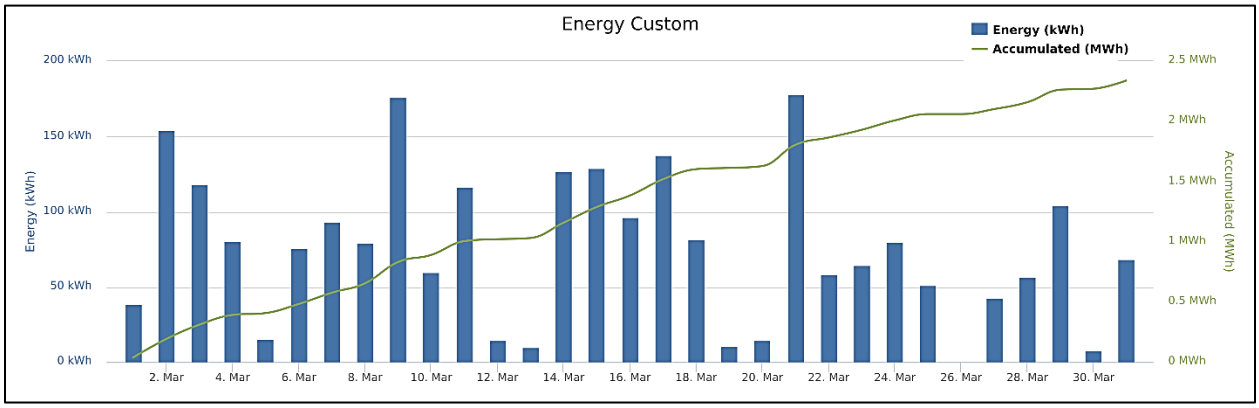
		This Month (March)	All Time
Miles Driven		**9,426.64**	**165,096.83**
Energy Consumed(kWh)		**2339.117**	**47,587.66**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$1,405.09**	**$18,994.67**
	Usage Cost Using EV(Electricity)	**$173.80**	**$4,579.79**
	Total Fuel Saving	**$1,231.30**	**$14,414.88**
Other Cost Saving	**CV Costs**	**$575.03**	**$8,719.97**
	EV Costs	**$245.09**	**$3,448.26**
	Total Other Cost Saving	**$329.93**	**$5,271.71**
Overall Economic Savings		**$1,561.23**	**$19,686.59**

Environmental Saving Data (Reduction in Emissions):

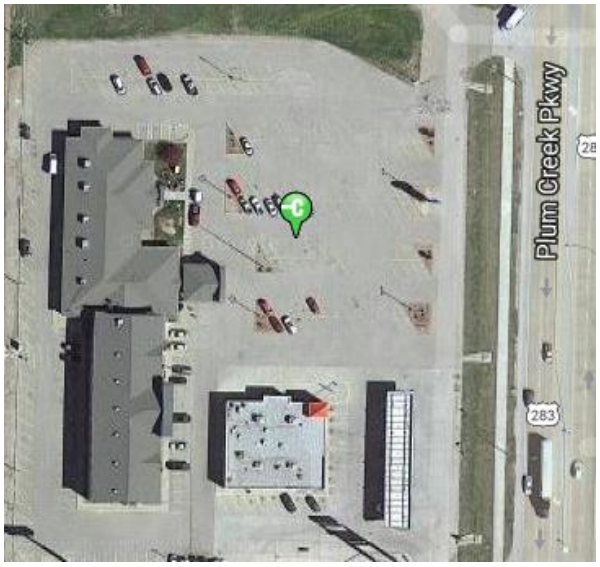
		This Month (March)	All Time
Miles Driven		**9,426.64**	**165,096.83**
Energy Consumed (kWh)		**2,339.12**	**47,587.66**
Co2 Emissions (lbs.)	**CV (Gas)**	**7,358.13**	**134,146.35**
	EV (Electricity)	**6,335.35**	**78,767.54**
	Total Fuel Saving	**1,022.79**	**55,378.81**
Co Emissions (lbs.)	**CV (Gas)**	**59.4598**	**1,241.7724**
	EV (Electricity)	**2.3050**	**31.9235**
	Total Fuel Saving	**57.1549**	**1,209.8489**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0873**	**2.0741**
	EV (Electricity)	**2.4954**	**36.9590**
	Total Fuel Saving	**(2.4081)**	**(34.8849)**
Nox Emissions (lbs.)	**CV (Gas)**	**2.4939**	**61.2358**
	EV (Electricity)	**22.4498**	**270.8310**
	Total Fuel Saving	**(19.9559)**	**(209.5952)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.1392**	**5.0557**
	EV (Electricity)	**0.2587**	**2.9673**
	Total Fuel Saving	**(0.1195)**	**2.0884**
VOC Emissions (lbs.)	**CV (Gas)**	**3.4997**	**62.5508**
	EV (Electricity)	**0.0575**	**1.3422**
	Total Fuel Saving	**3.4422**	**61.2086**

Energy Consumption Data

March 2022



Lexington



Economic Saving Data (Fuel & Maintenance Cost Savings):

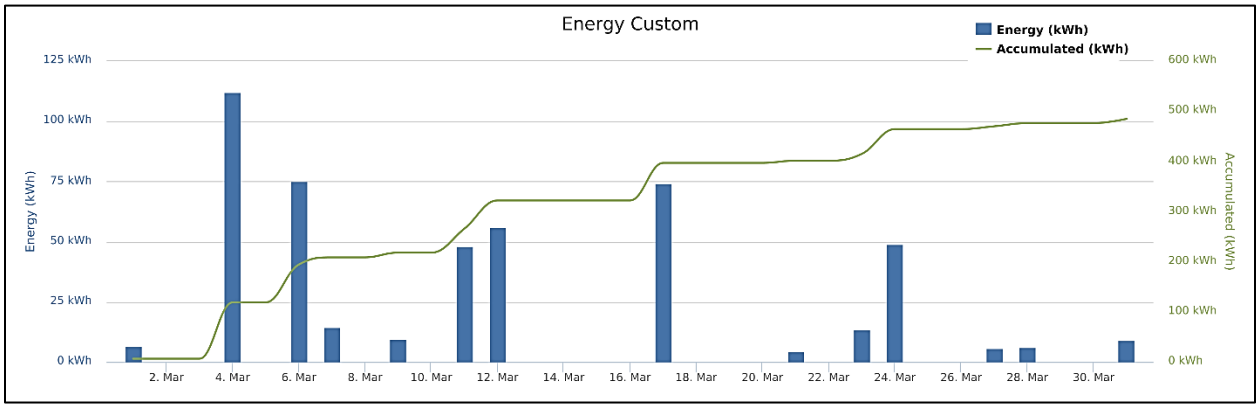
		This Month (March)	All Time
Miles Driven		**1,954.94**	**44,752.49**
Energy Consumed(kWh)		**485.097**	**13,052.43**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$286.00**	**$4,767.64**
	Usage Cost Using EV(Electricity)	**$55.25**	**$1,355.77**
	Total Fuel Saving	**$230.75**	**$3,411.87**
Other Cost Saving	**CV Costs**	**$119.25**	**$2,380.04**
	EV Costs	**$50.83**	**$1,054.82**
	Total Other Cost Saving	**$68.42**	**$1,325.22**
Overall Economic Savings		**$299.17**	**$4,737.09**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**1,954.94**	**44,752.49**
Energy Consumed (kWh)		**485.10**	**13,052.43**
Co2 Emissions (lbs.)	**CV (Gas)**	**1,525.96**	**36,502.22**
	EV (Electricity)	**335.01**	**14,676.40**
	Total Fuel Saving	**1,190.95**	**21,825.81**
Co Emissions (lbs.)	**CV (Gas)**	**12.3311**	**396.2581**
	EV (Electricity)	**0.3007**	**10.9559**
	Total Fuel Saving	**12.0303**	**385.3022**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0181**	**0.7246**
	EV (Electricity)	**0.7353**	**31.9820**
	Total Fuel Saving	**(0.7172)**	**(31.2574)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.5172**	**21.8262**
	EV (Electricity)	**0.5109**	**42.7438**
	Total Fuel Saving	**0.0063**	**(20.9175)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0289**	**1.6161**
	EV (Electricity)	**0.0337**	**1.0654**
	Total Fuel Saving	**(0.0049)**	**0.5508**
VOC Emissions (lbs.)	**CV (Gas)**	**0.7258**	**17.3301**
	EV (Electricity)	**0.0047**	**0.2551**
	Total Fuel Saving	**0.7211**	**17.0749**

Energy Consumption Data

March 2022



Lincoln

Economic Saving Data (Fuel & Maintenance Cost Savings):

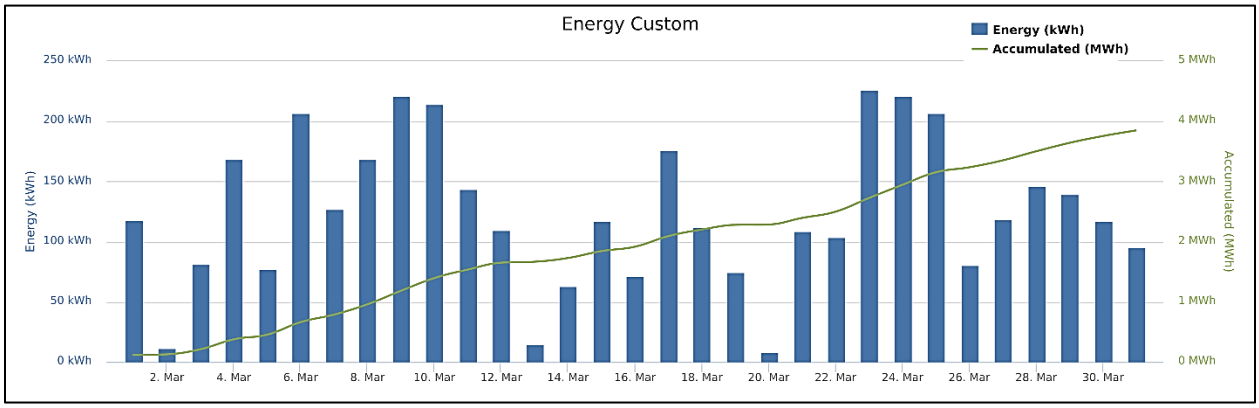
		This Month (March)	All Time
Miles Driven		**15,520.28**	**351,311.72**
Energy Consumed(kWh)		**3,851.19**	**102,433.63**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$2,318.08**	**$39,286.01**
	Usage Cost Using EV(Electricity)	**$286.14**	**$7,710.18**
	Total Fuel Saving	**$2,031.94**	**$31,575.83**
Other Cost Saving	**CV Costs**	**$946.74**	**$18,350.01**
	EV Costs	**$403.53**	**$7,147.94**
	Total Other Cost Saving	**$543.21**	**$11,202.06**
Overall Economic Savings		**$2,575.15**	**$42,777.89**

Environmental Saving Data (Reduction in Emissions):

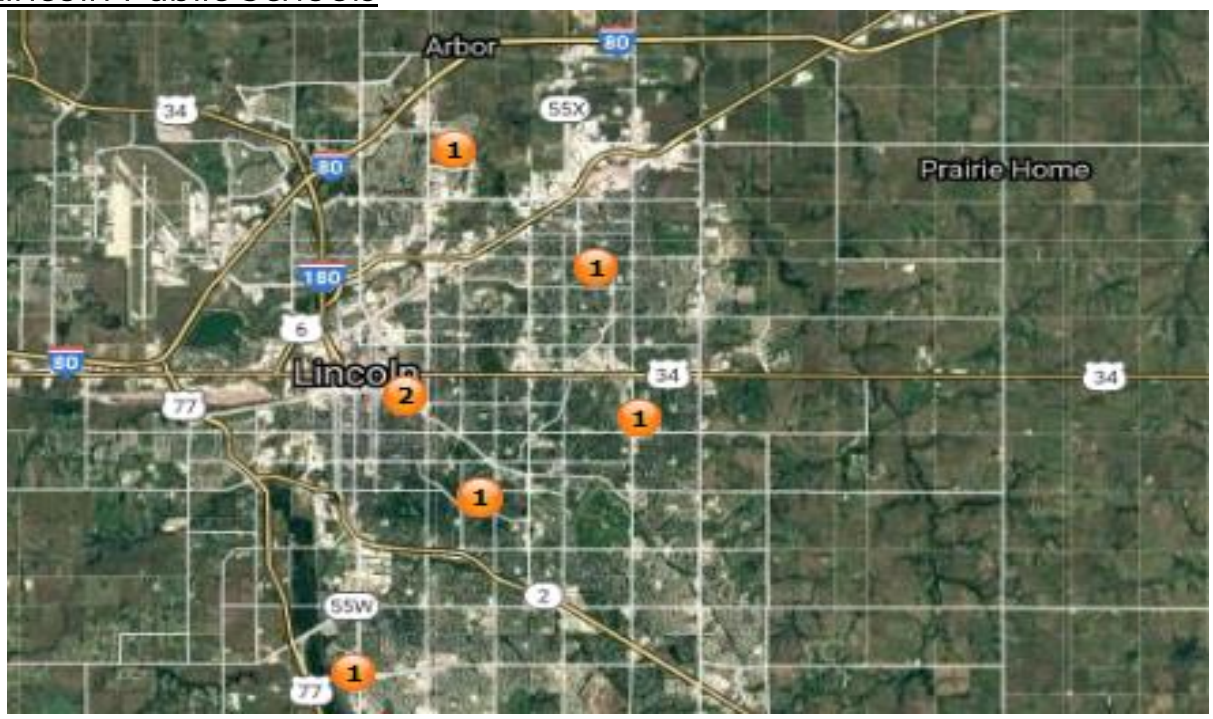
		This Month (March)	All Time
Miles Driven		**15,520.28**	**351,311.72**
Energy Consumed (kWh)		**3,851.19**	**102,433.63**
Co2 Emissions (lbs.)	**CV (Gas)**	**12,114.63**	**282,099.54**
	EV (Electricity)	**10,430.69**	**167,934.73**
	Total Fuel Saving	**1,683.94**	**114,164.81**
Co Emissions (lbs.)	**CV (Gas)**	**97.8963**	**2,424.3062**
	EV (Electricity)	**3.7950**	**65.5799**
	Total Fuel Saving	**94.1013**	**2,358.7262**
So2 Emissions (lbs.)	**CV (Gas)**	**0.1437**	**3.8195**
	EV (Electricity)	**4.1085**	**81.1872**
	Total Fuel Saving	**(3.9648)**	**(77.3678)**
Nox Emissions (lbs.)	**CV (Gas)**	**4.1060**	**111.1907**
	EV (Electricity)	**36.9619**	**566.4831**
	Total Fuel Saving	**(32.8559)**	**(455.2924)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.2292**	**10.4991**
	EV (Electricity)	**0.4260**	**5.9236**
	Total Fuel Saving	**(0.1967)**	**4.5755**
VOC Emissions (lbs.)	**CV (Gas)**	**5.7620**	**131.7042**
	EV (Electricity)	**0.0947**	**2.9678**
	Total Fuel Saving	**5.6673**	**128.7364**

Energy Consumption Data

March 2022



Lincoln Public Schools



Economic Saving Data (Fuel & Maintenance Cost Savings):

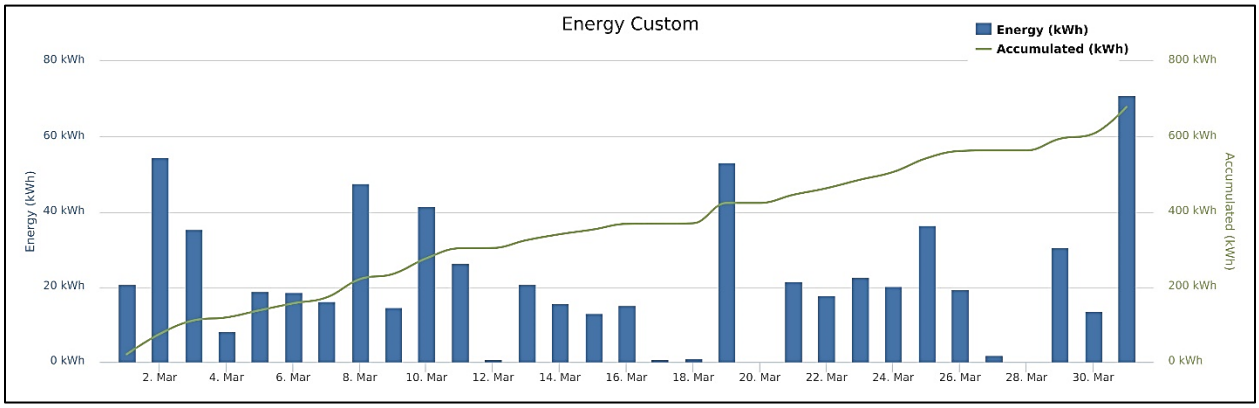
		This Month (March)	All Time
Miles Driven		**2,731.34**	**28,376.85**
Energy Consumed(kWh)		**677.75**	**8,085.83**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$405.79**	**$3,447.89**
	Usage Cost Using EV(Electricity)	**$50.36**	**$610.31**
	Total Fuel Saving	**$355.43**	**$2,837.58**
Other Cost Saving	**CV Costs**	**$166.61**	**$1,730.99**
	EV Costs	**$71.01**	**$737.80**
	Total Other Cost Saving	**$95.60**	**$993.19**
Overall Economic Savings		**$451.03**	**$3,830.77**

Environmental Saving Data (Reduction in Emissions):

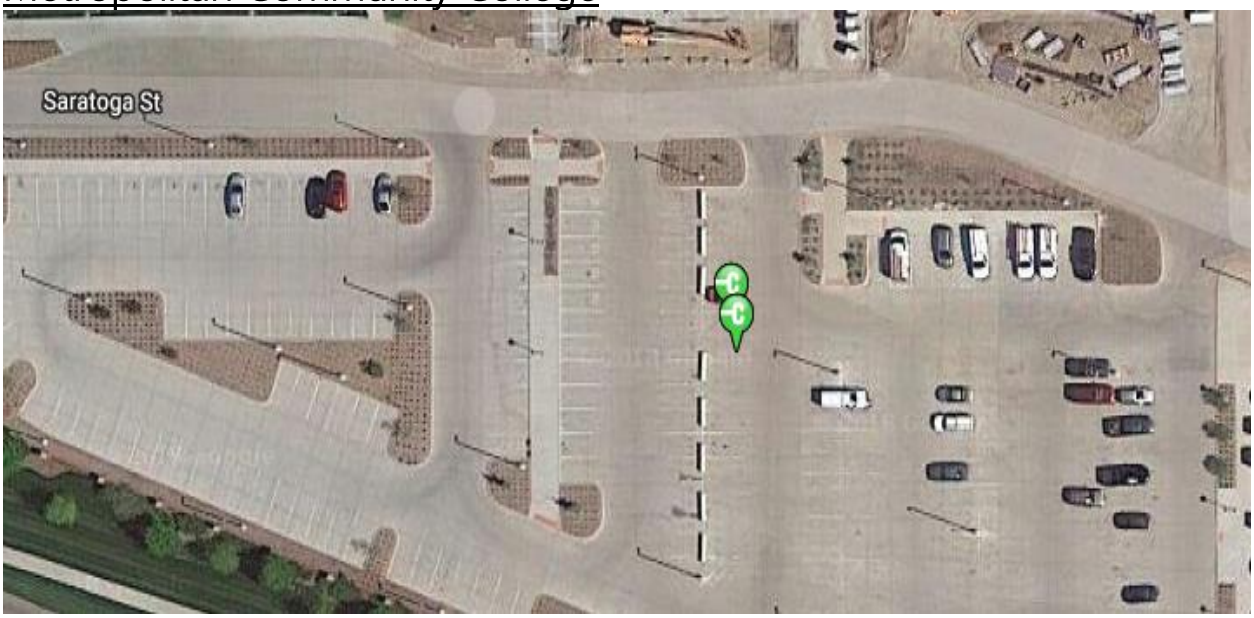
		This Month (March)	All Time
Miles Driven		**2,731.34**	**28,376.85**
Energy Consumed (kWh)		**677.75**	**8,085.83**
Co2 Emissions (lbs.)	**CV (Gas)**	**2,132.00**	**22,150.05**
	EV (Electricity)	**1,835.65**	**11,705.07**
	Total Fuel Saving	**296.35**	**10,444.99**
Co Emissions (lbs.)	**CV (Gas)**	**17.2283**	**178.9909**
	EV (Electricity)	**0.6679**	**7.1424**
	Total Fuel Saving	**16.5604**	**171.8485**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0253**	**0.2628**
	EV (Electricity)	**0.7230**	**7.4086**
	Total Fuel Saving	**(0.6977)**	**(7.1459)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.7226**	**7.5072**
	EV (Electricity)	**6.5048**	**20.6751**
	Total Fuel Saving	**(5.7822)**	**(13.1679)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0403**	**0.4192**
	EV (Electricity)	**0.0750**	**0.7212**
	Total Fuel Saving	**(0.0346)**	**(0.3021)**
VOC Emissions (lbs.)	**CV (Gas)**	**1.0140**	**10.5351**
	EV (Electricity)	**0.0167**	**0.1866**
	Total Fuel Saving	**0.9974**	**10.3486**

Energy Consumption Data

March 2022



Metropolitan Community College



Economic Saving Data (Fuel & Maintenance Cost Savings):

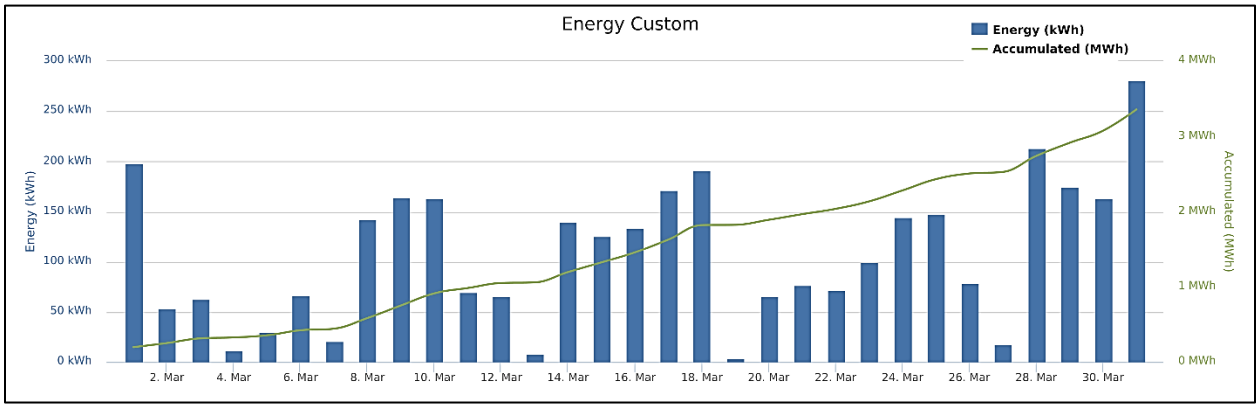
		This Month (March)	All Time
Miles Driven		**13,529.58**	**127,366.59**
Energy Consumed(kWh)		**3,357.22**	**36,333.45**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$1,994.00**	**$14,483.31**
	Usage Cost Using EV(Electricity)	**$296.61**	**$3,195.58**
	Total Fuel Saving	**$1,697.39**	**$11,287.73**
Other Cost Saving	**CV Costs**	**$825.30**	**$6,828.86**
	EV Costs	**$351.77**	**$2,498.09**
	Total Other Cost Saving	**$473.54**	**$4,330.77**
Overall Economic Savings		**$2,170.93**	**$15,618.49**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**13,529.58**	**127,366.59**
Energy Consumed (kWh)		**3,357.22**	**36,333.45**
Co2 Emissions (lbs.)	**CV (Gas)**	**10,560.757**	**102,448.108**
	EV (Electricity)	**6,294.838**	**58,819.127**
	Total Fuel Saving	**4,265.919**	**43,628.981**
Co Emissions (lbs.)	**CV (Gas)**	**85.3397**	**803.3958**
	EV (Electricity)	**5.9748**	**51.5876**
	Total Fuel Saving	**79.3649**	**751.8082**
So2 Emissions (lbs.)	**CV (Gas)**	**0.1253**	**1.1793**
	EV (Electricity)	**9.6573**	**111.6619**
	Total Fuel Saving	**(9.5320)**	**(110.4826)**
Nox Emissions (lbs.)	**CV (Gas)**	**3.5793**	**33.6961**
	EV (Electricity)	**4.9379**	**79.0522**
	Total Fuel Saving	**(1.3586)**	**(45.3561)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.1998**	**3.1056**
	EV (Electricity)	**0.6792**	**5.7737**
	Total Fuel Saving	**(0.4794)**	**(2.6680)**
VOC Emissions (lbs.)	**CV (Gas)**	**5.0230**	**47.2840**
	EV (Electricity)	**0.0717**	**0.8924**
	Total Fuel Saving	**4.9512**	**46.3916**

Energy Consumption Data

March 2022



Nebraska City

Data from Two existing charging station with three ports

		This Month (March)	All Time
Miles Driven		**4,952.33**	**94,675.09**
Energy Consumed(kWh)		**1228.867**	**27,416.07**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$730.77**	**$10,558.88**
	Usage Cost Using EV(Electricity)	**$130.75**	**$2,938.57**
	Total Fuel Saving	**$600.02**	**$7,620.31**
Other Cost Saving	**CV Costs**	**$302.09**	**$5,124.76**
	EV Costs	**$128.76**	**$2,205.41**
	Total Other Cost Saving	**$173.33**	**$2,919.35**
Overall Economic Savings		**$773.35**	**$10,539.66**

Environmental Saving Data (Reduction in Emissions):

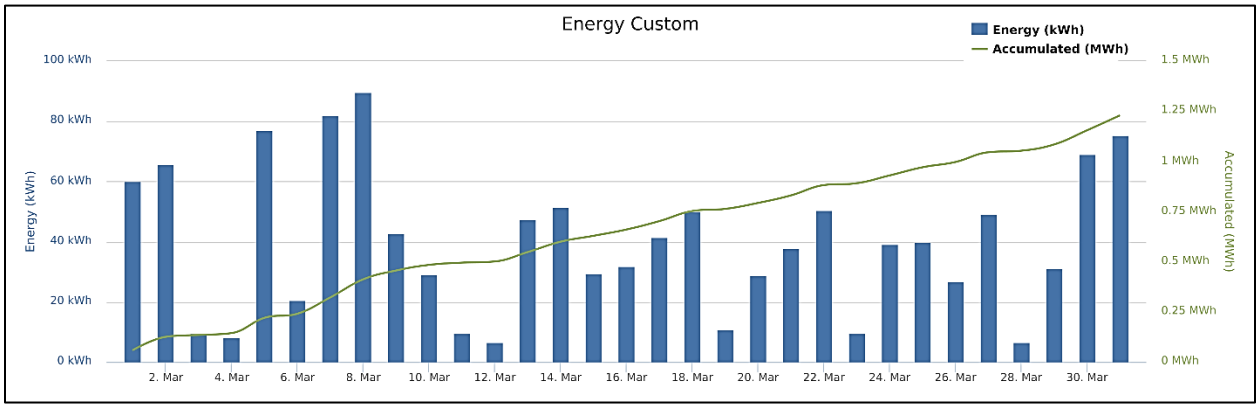
		This Month (March)	All Time
Miles Driven		**4,952.33**	**94,675.09**
Energy Consumed (kWh)		**1,228.87**	**27,416.07**
Co2 Emissions (lbs.)	**CV (Gas)**	**3,865.63**	**77,031.64**
	EV (Electricity)	**2,681.63**	**26,063.74**
	Total Fuel Saving	**1,184.00**	**50,967.90**
Co Emissions (lbs.)	**CV (Gas)**	**31.2375**	**795.1425**
	EV (Electricity)	**2.4383**	**25.1407**
	Total Fuel Saving	**28.7992**	**770.0019**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0459**	**1.4155**
	EV (Electricity)	**0.0278**	**40.4224**
	Total Fuel Saving	**0.0180**	**(39.0068)**
Nox Emissions (lbs.)	**CV (Gas)**	**1.3102**	**42.3933**
	EV (Electricity)	**1.5267**	**18.7708**
	Total Fuel Saving	**(0.2165)**	**23.6224**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0732**	**3.0766**
	EV (Electricity)	**0.3116**	**2.6270**
	Total Fuel Saving	**(0.2385)**	**0.4497**
VOC Emissions (lbs.)	**CV (Gas)**	**1.8386**	**36.3935**
	EV (Electricity)	**0.0119**	**0.3147**
	Total Fuel Saving	**1.8267**	**36.0788**

CNG Data – No new data for March 2022, this is from previous calculations.

		Total
Miles driven		36,520.0
Fuel cost Savings:	Usage Cost Using CV (Gas)	$4,512.16
	Usage Cost Using CNG (Natural gas)	$2,834.56
	Total Fuel Savings	$1,677.60
CO2 Emissions (lbs.)	CV (Gas)	37,613.59
	CNG (Natural Gas)	30,048.11
	Overall Emission Reductions	7,565.48
CO Emissions (lbs.)	CV (Gas)	799.68
	CNG (Natural Gas)	1,439.27
	Overall Emission Reductions	(639.59)
SO2 Emissions (lbs.)	CV (Gas)	1.029
	CNG (Natural Gas)	0.1527
	Overall Emission Reductions	0.8763
NOx Emissions (lbs.)	CV (Gas)	22.09
	CNG (Natural Gas)	27.69
	Overall Emission Reductions	(5.6)
CH4 Emissions (lbs.)	CV (Gas)	1.31
	CNG (Natural Gas)	49.68
	Overall Emission Reductions	(48.37)
VOC Emissions (lbs.)	CV (Gas)	19.39
	CNG (Natural Gas)	22.52
	Overall Emission Reductions	(3.13)

Energy Consumption Data

March 2022



Nebraska City

- Data from one existing charging station with two ports

Economic Saving Data (Fuel & Maintenance Cost Savings):

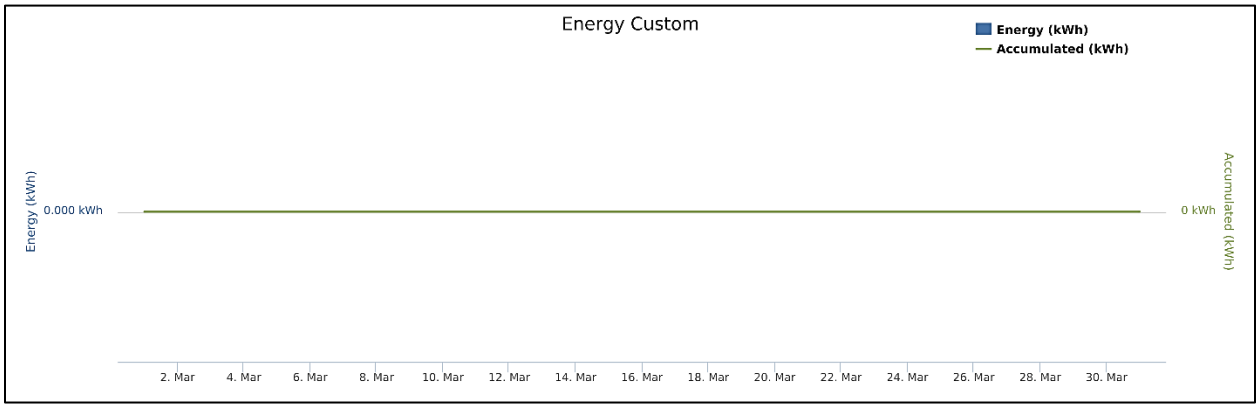
		This Month (March)	All Time
Miles driven		**0**	5,861.28
Energy consumed (kWh)		**0**	1,723.9
Fuel cost Savings:	Usage Cost Using CV (Gas)	**$0**	**$618.62**
	Usage Cost Using EV (Electricity)	**$0**	**$176.3**
	Total Fuel Savings	**$0**	**$442.32**
Other Cost Savings:	CV Costs	**$0**	**$293.75**
	EV Costs	**$0**	**$216.76**
	Total Other Cost Savings	**$0**	**$76.99**
Overall Economic Savings		**$0**	**$519.31**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles driven		0	5,861.28
Energy consumed (kWh)		0	1,723.9
CO2 Emissions (lbs.)	CV (Gas)	0	5,623.17
	EV (Electricity)	0	681.15
	Overall Emission Reductions	0	4,942.02
CO Emissions (lbs.)	CV (Gas)	0	125.4104
	EV (Electricity)	0	0.8314
	Overall Emission Reductions	0	124.579
SO2 Emissions (lbs.)	CV (Gas)	0	0.2916
	EV (Electricity)	0	4.5738
	Overall Emission Reductions	(0)	(4.2822)
NOx Emissions (lbs.)	CV (Gas)	0	9.1734
	EV (Electricity)	0	2.2423
	Overall Emission Reductions	(0)	6.9311
CH4 Emissions (lbs.)	CV (Gas)	0	0.5377
	EV (Electricity)	0	0.0286
	Overall Emission Reductions	0	0.5091
VOC Emissions (lbs.)	CV (Gas)	0	2.8789
	EV (Electricity)	0	0.0335
	Overall Emission Reductions	0	2.8454

Energy Consumption Data

March 2022



Nebraska City Savings Summary

Overall Economic Savings		$12,736.57
Overall Emission Reductions (lbs.)	CO2	63,475.3957
	CO	894.5809
	SO2	(43.2890)
	NOX	30.5535
	CH4	0.9588
	VOC	38.9242

Norfolk

Total Economic Saving Data (Fuel & Maintenance Cost Savings):

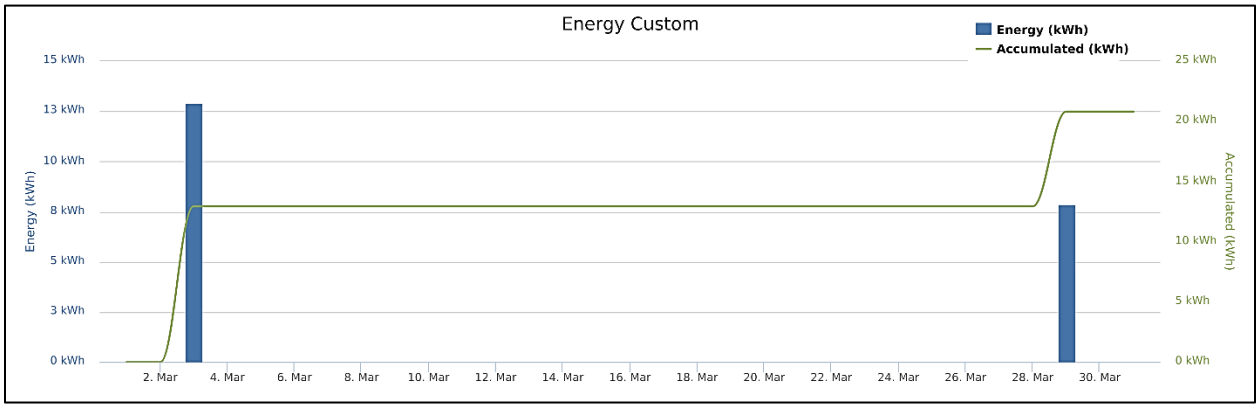
		This Month (March)	All Time
Miles Driven		**83.80788**	**3,163.28**
Energy Consumed(kWh)		**20.796**	**893.22**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$4.65**	**$314.92**
	Usage Cost Using EV(Electricity)	**$2.43**	**$104.42**
	Total Fuel Saving	**$2.22**	**$210.50**
Other Cost Saving	**CV Costs**	**$5.11**	**$192.96**
	EV Costs	**$2.18**	**$82.25**
	Total other cost Saving	**$2.93**	**$110.71**
Overall Economic Savings		**$5.15**	**$321.21**

Environmental Saving Data (Reduction in Emissions):

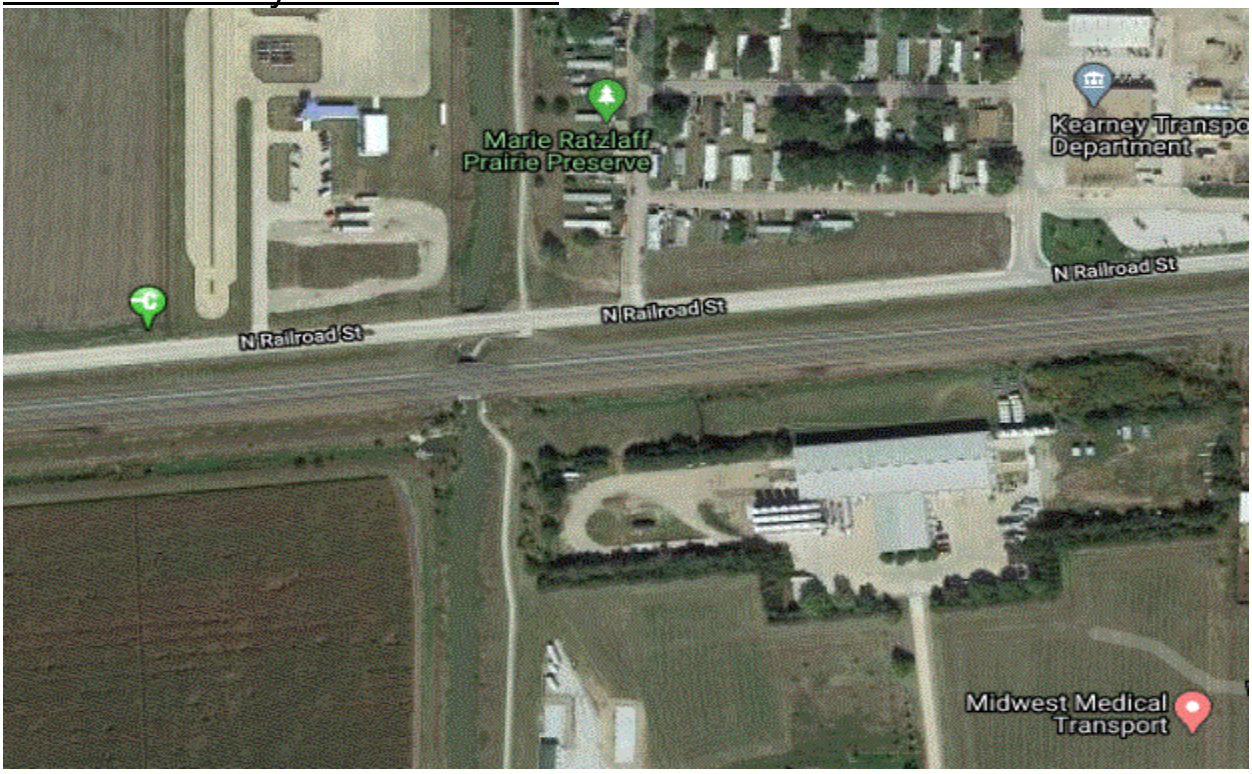
		This Month (March)	All Time
Miles Driven		**83.8079**	**3,163.28**
Energy Consumed (kWh)		**20.7960**	**893.22**
Co2 Emissions (lbs.)	**CV (Gas)**	**65.418**	**2469.157**
	EV (Electricity)	**38.130**	**1012.480**
	Total Fuel Saving	**27.288**	**1456.676**
Co Emissions (lbs.)	**CV (Gas)**	**0.529**	**19.953**
	EV (Electricity)	**0.035**	**0.446**
	Total Fuel Saving	**0.493**	**19.507**
So2 Emissions (lbs.)	**CV (Gas)**	**0.001**	**0.029**
	EV (Electricity)	**0.066**	**1.783**
	Total Fuel Saving	**(0.0653)**	**(1.7532)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.022**	**0.837**
	EV (Electricity)	**0.034**	**13.482**
	Total Fuel Saving	**(0.0120)**	**(12.6454)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.001**	**0.047**
	EV (Electricity)	**0.004**	**0.067**
	Total Fuel Saving	**(0.0032)**	**(0.0203)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.031**	**1.174**
	EV (Electricity)	**0.000**	**0.020**
	Total Fuel Saving	**0.0307**	**1.1542**

Energy Consumption Data

March 2022



Nebraska Safety Center at UNK



Total Economic Saving Data (Fuel & Maintenance Cost Savings):

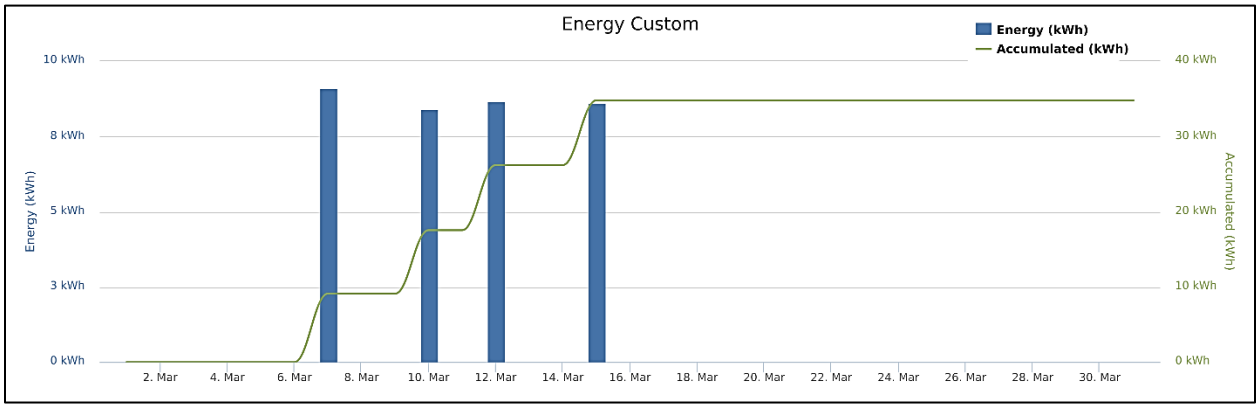
		This Month (March)	All Time
Miles Driven		**140.08**	**982.34**
Energy Consumed(kWh)		**34.76**	**283.62**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$21.02**	**$108.53**
	Usage Cost Using EV(Electricity)	**$2.96**	**$24.19**
	Total Fuel Saving	**$18.05**	**$84.34**
Other Cost Saving	**CV Costs**	**$8.54**	**$55.20**
	EV Costs	**$3.64**	**$21.33**
	Total Other Cost Saving	**$4.90**	**$33.87**
Overall Economic Savings		**$22.96**	**$118.21**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**140.08**	**982.34**
Energy Consumed (kWh)		**34.76**	**283.62**
Co2 Emissions (lbs.)	**CV (Gas)**	**109.34**	**783.11**
	EV (Electricity)	**24.00**	**375.87**
	Total Fuel Saving	**85.34**	**407.24**
Co Emissions (lbs.)	**CV (Gas)**	**0.8836**	**6.1963**
	EV (Electricity)	**0.0215**	**0.2724**
	Total Fuel Saving	**0.8620**	**5.9239**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0013**	**0.0091**
	EV (Electricity)	**0.0527**	**0.7087**
	Total Fuel Saving	**(0.0514)**	**(0.6997)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.0371**	**0.2599**
	EV (Electricity)	**0.0366**	**1.1274**
	Total Fuel Saving	**0.0004**	**(0.8676)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0021**	**0.0205**
	EV (Electricity)	**0.0024**	**0.0300**
	Total Fuel Saving	**(0.0003)**	**(0.0095)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.0520**	**0.3647**
	EV (Electricity)	**0.0003**	**0.0061**
	Total Fuel Saving	**0.0517**	**0.3586**

Energy Consumption Data

March 2022



NP Dodge

Total Economic Saving Data (Fuel & Maintenance Cost Savings):

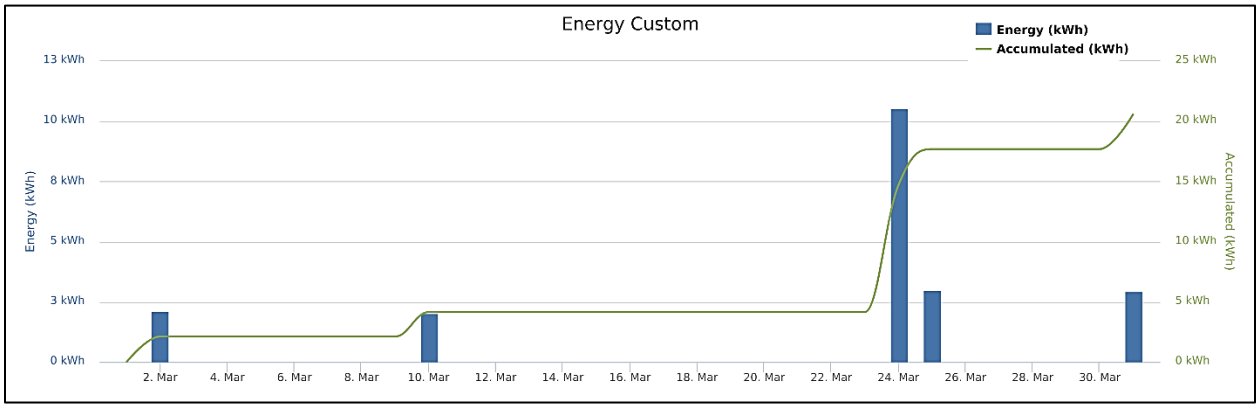
		This Month (March)	All Time
Miles Driven		**83.13**	**10,939.26**
Energy Consumed(KWh)		**20.63**	**3,233.30**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$12.24**	**$1,041.73**
	Usage Cost Using EV(Electricity)	**$1.82**	**$281.35**
	Total Fuel Saving	**$10.42**	**$760.38**
Other Cost Saving	**CV Costs**	**$5.07**	**$585.98**
	EV Costs	**$2.16**	**$211.94**
	Total Other Cost Saving	**$2.91**	**$374.04**
Overall Economic Savings		**$13.33**	**$1,134.42**

Environmental Saving Data (Reduction in Emissions):

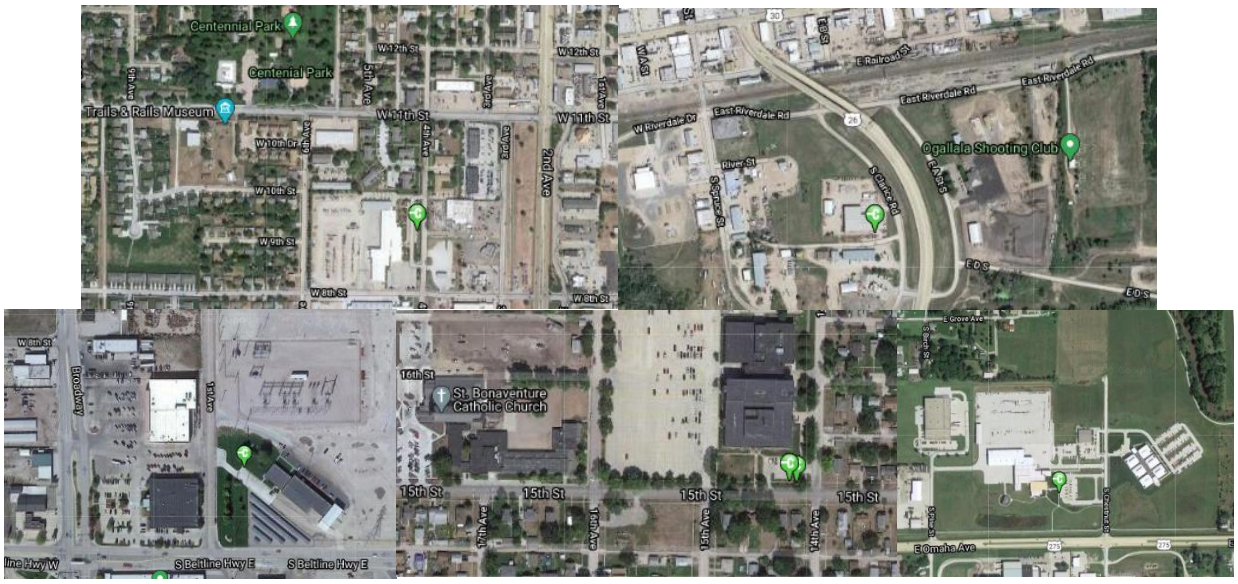
		This Month (March)	All Time
Miles Driven		**83.13**	**10,939.26**
Energy Consumed (kWh)		**20.63**	**3,233.30**
Co2 Emissions (lbs.)	**CV (Gas)**	**64.89**	**8,819.72**
	EV (Electricity)	**38.68**	**5,138.85**
	Total Fuel Saving	**26.21**	**3,680.87**
Co Emissions (lbs.)	**CV (Gas)**	**0.5243**	**69.0009**
	EV (Electricity)	**0.0367**	**4.2991**
	Total Fuel Saving	**0.4876**	**64.7017**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0008**	**0.1013**
	EV (Electricity)	**0.0593**	**9.7817**
	Total Fuel Saving	**(0.0586)**	**(9.6804)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.0220**	**2.8940**
	EV (Electricity)	**0.0303**	**7.5913**
	Total Fuel Saving	**(0.0083)**	**(4.6972)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0012**	**0.2649**
	EV (Electricity)	**0.0042**	**0.4885**
	Total Fuel Saving	**(0.0029)**	**(0.2236)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.0309**	**4.0613**
	EV (Electricity)	**0.0004**	**0.0828**
	Total Fuel Saving	**0.0304**	**3.9785**

Energy Consumption Data

March 2022



NPPD



Total Economic Saving Data (Fuel & Maintenance Cost Savings):

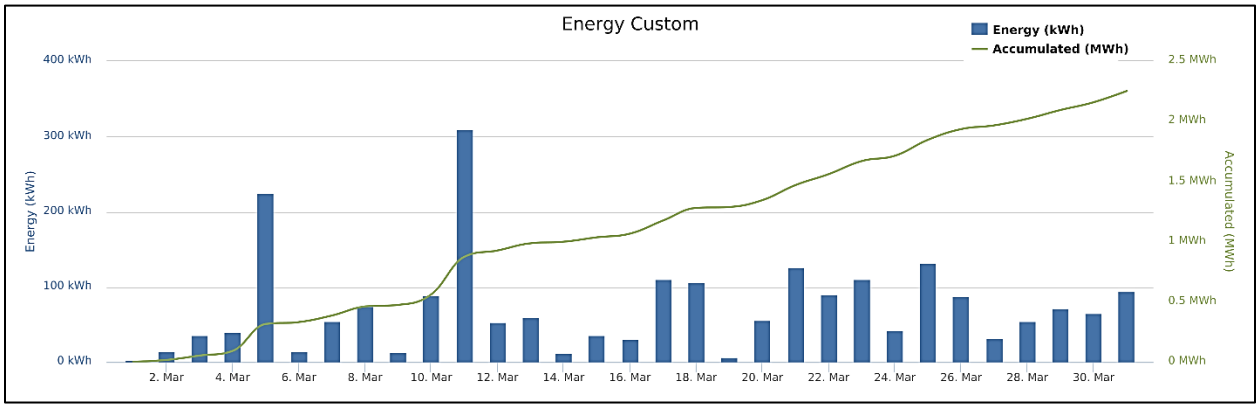
		This Month (March)	All Time
Miles Driven		**9,076.34**	**101,247.90**
Energy Consumed(kWh)		**2,252.19**	**28,765.92**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$1,358.89**	**$11,579.16**
	Usage Cost Using EV(Electricity)	**$167.34**	**$2,170.56**
	Total Fuel Saving	**$1,191.55**	**$9,408.60**
Other Cost Saving	**CV Costs**	**$553.66**	**$6,176.12**
	EV Costs	**$235.98**	**$2,632.45**
	Total Other Cost Saving	**$317.67**	**$3,543.68**
Overall Economic Savings		**$1,509.23**	**$12,952.28**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**9,076.34**	**101,247.90**
Energy Consumed (kWh)		**2,252.19**	**28,765.92**
Co2 Emissions (lbs.)	**CV (Gas)**	**7,084.70**	**79,030.85**
	EV (Electricity)	**6,099.92**	**42,356.80**
	Total Fuel Saving	**984.78**	**36,674.05**
Co Emissions (lbs.)	**CV (Gas)**	**57.2503**	**638.6351**
	EV (Electricity)	**2.2193**	**25.4674**
	Total Fuel Saving	**55.0310**	**613.1677**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0840**	**0.9375**
	EV (Electricity)	**2.4026**	**26.4421**
	Total Fuel Saving	**(2.3186)**	**(25.5046)**
Nox Emissions (lbs.)	**CV (Gas)**	**2.4012**	**26.7856**
	EV (Electricity)	**21.6155**	**77.5469**
	Total Fuel Saving	**(19.2143)**	**(50.7613)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.1341**	**1.4955**
	EV (Electricity)	**0.2491**	**2.5779**
	Total Fuel Saving	**(0.1151)**	**(1.0824)**
VOC Emissions (lbs.)	**CV (Gas)**	**3.3697**	**37.5891**
	EV (Electricity)	**0.0554**	**0.6646**
	Total Fuel Saving	**3.3143**	**36.9245**

Energy Consumption Data

March 2022



Minden

Total Economic Saving Data (Fuel & Maintenance Cost Savings):

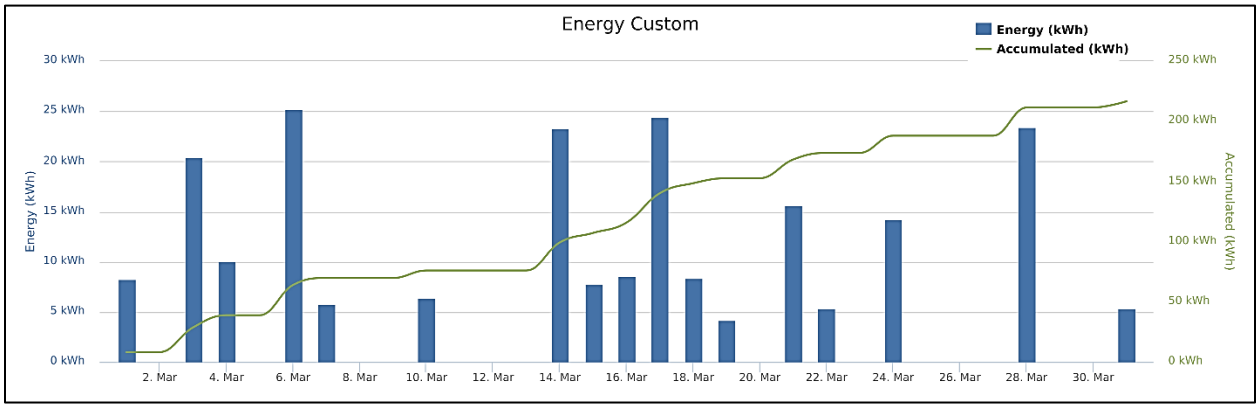
		This Month (March)	All Time
Miles Driven		**873.14**	**3,378.61**
Energy Consumed(kWh)		**216.66**	**909.69**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$129.11**	**$430.83**
	Usage Cost Using EV(Electricity)	**$20.37**	**$87.14**
	Total Fuel Saving	**$108.75**	**$343.69**
Other Cost Saving	**CV Costs**	**$53.26**	**$206.10**
	EV Costs	**$22.70**	**$87.84**
	Total Other Cost Saving	**$30.56**	**$118.25**
Overall Economic Savings		**$139.31**	**$461.94**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**873.14**	**3,378.61**
Energy Consumed (kWh)		**216.66**	**909.69**
Co2 Emissions (lbs.)	**CV (Gas)**	**681.55**	**2,637.23**
	EV (Electricity)	**149.63**	**1,006.52**
	Total Fuel Saving	**531.92**	**1,630.71**
Co Emissions (lbs.)	**CV (Gas)**	**5.5075**	**21.3110**
	EV (Electricity)	**0.1343**	**0.7454**
	Total Fuel Saving	**5.3732**	**20.5656**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0081**	**0.0313**
	EV (Electricity)	**0.3284**	**1.9524**
	Total Fuel Saving	**(0.3203)**	**(1.9211)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.2310**	**0.8938**
	EV (Electricity)	**0.2282**	**2.6557**
	Total Fuel Saving	**0.0028**	**(1.7618)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0129**	**0.0499**
	EV (Electricity)	**0.0151**	**0.0874**
	Total Fuel Saving	**(0.0022)**	**(0.0375)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.3242**	**1.2543**
	EV (Electricity)	**0.0021**	**0.0165**
	Total Fuel Saving	**0.3221**	**1.2378**

Energy Consumption Data

March 2022



OPPD

Data from two existing charging stations Purchased via NET/NCEA Grant.

Economic Saving Data (Fuel & Maintenance Cost Savings):

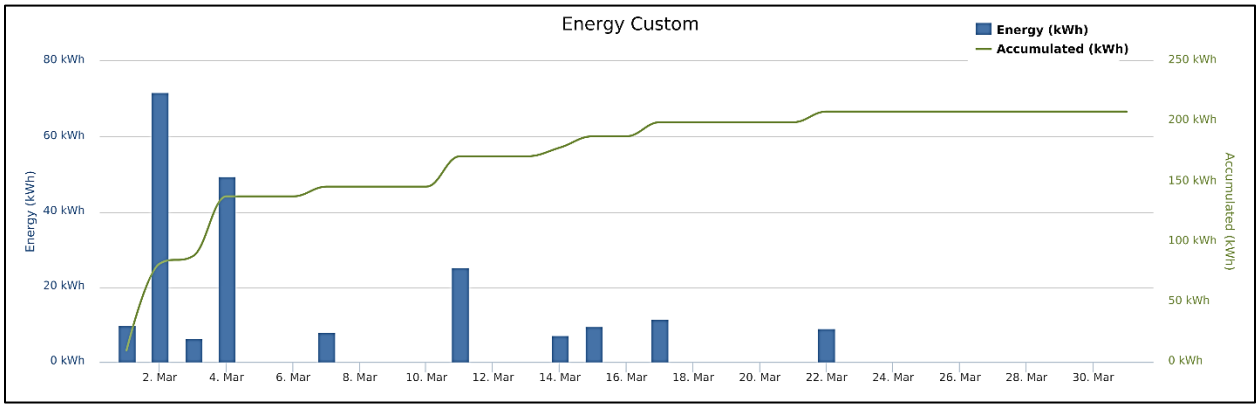
		This Month (March)	All Time
Miles Driven		**838.74**	**83,282.79**
Energy Consumed(kWh)		**208.12**	**24,553.12**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$117.78**	**$8,552.24**
	Usage Cost Using EV(Electricity)	**$18.39**	**$2,187.46**
	Total Fuel Saving	**$99.39**	**$6,364.78**
Other Cost Saving	**CV Costs**	**$51.16**	**$4,069.96**
	EV Costs	**$21.81**	**$2,002.87**
	Total Other Cost Saving	**$29.36**	**$2,067.09**
Overall Economic Savings		**$128.75**	**$8,431.87**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**838.740**	**83,282.791**
Energy Consumed (kWh)		**208.124**	**24,553.117**
Co2 Emissions (lbs.)	**CV (Gas)**	**654.69**	**69,419.04**
	EV (Electricity)	**390.24**	**26,576.31**
	Total Fuel Saving	**264.46**	**42,842.73**
Co Emissions (lbs.)	**CV (Gas)**	**5.2905**	**918.8120**
	EV (Electricity)	**0.3704**	**23.7183**
	Total Fuel Saving	**4.9201**	**895.0937**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0078**	**1.8421**
	EV (Electricity)	**0.5987**	**75.9149**
	Total Fuel Saving	**(0.5909)**	**(74.0728)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.2219**	**56.5115**
	EV (Electricity)	**0.3061**	**46.6332**
	Total Fuel Saving	**(0.0842)**	**9.8783**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0124**	**4.3206**
	EV (Electricity)	**0.0421**	**2.1773**
	Total Fuel Saving	**(0.0297)**	**2.1433**
VOC Emissions (lbs.)	**CV (Gas)**	**0.3114**	**33.3859**
	EV (Electricity)	**0.0044**	**0.5351**
	Total Fuel Saving	**0.3069**	**32.8507**

Energy Consumption Data

March 2022



OPPD

- Data from one existing charging stations with two ports.

Economic Saving Data (Fuel & Maintenance Cost Savings):

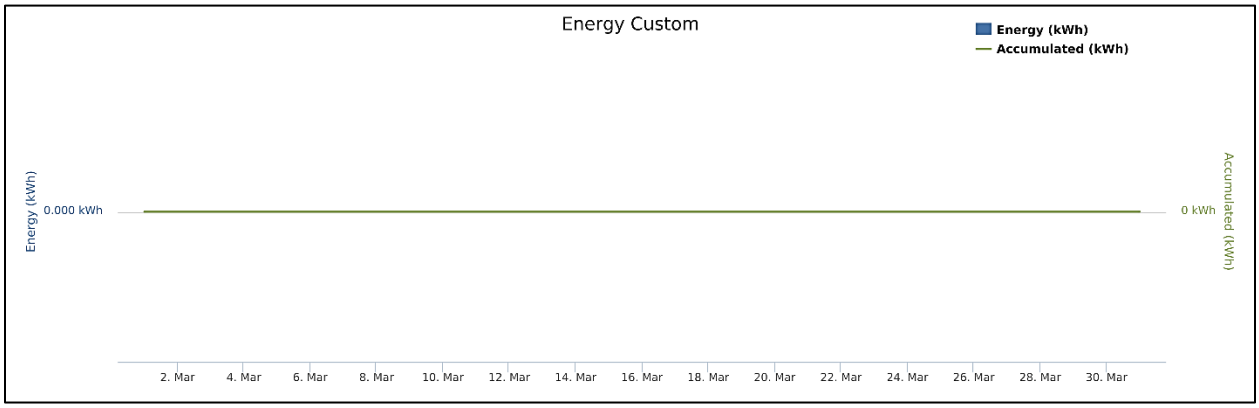
		This Month (March)	All Time
Miles driven		0	15,250.60
Energy consumed (kWh)		0	4,485.47
Fuel cost Savings:	Usage Cost Using CV (Gas)	$0	$1,587.95
	Usage Cost Using EV (Electricity)	$0	$376.78
	Total Fuel Savings	$0	$1,211.17
Other Cost Savings:	CV Costs	$0	$755.95
	EV Costs	$0	$564.27
	Total Other Cost Savings	$0	$191.68
Overall Economic Savings		$0	$1,402.85

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles driven		0	15,250.60
Energy consumed (kWh)		0	4,485.47
CO2 Emissions (lbs.)	CV (Gas)	0	13,817.04
	EV (Electricity)	0	1,295.40
	Overall Emission Reductions	0	12,521.64
CO Emissions (lbs.)	CV (Gas)	0	316.0458
	EV (Electricity)	0	2.0173
	Overall Emission Reductions	0	314.0285
SO2 Emissions (lbs.)	CV (Gas)	0	0.7397
	EV (Electricity)	0	12.4400
	Overall Emission Reductions	0	(11.7003)
NOx Emissions (lbs.)	CV (Gas)	0	23.2999
	EV (Electricity)	0	5.3459
	Overall Emission Reductions	0	17.954
CH4 Emissions (lbs.)	CV (Gas)	0	1.3449
	EV (Electricity)	0	0.0672
	Overall Emission Reductions	0	1.2777
VOC Emissions (lbs.)	CV (Gas)	0	7.0471
	EV (Electricity)	0	0.0773
	Overall Emission Reductions	0	6.9698

Energy Consumption Data

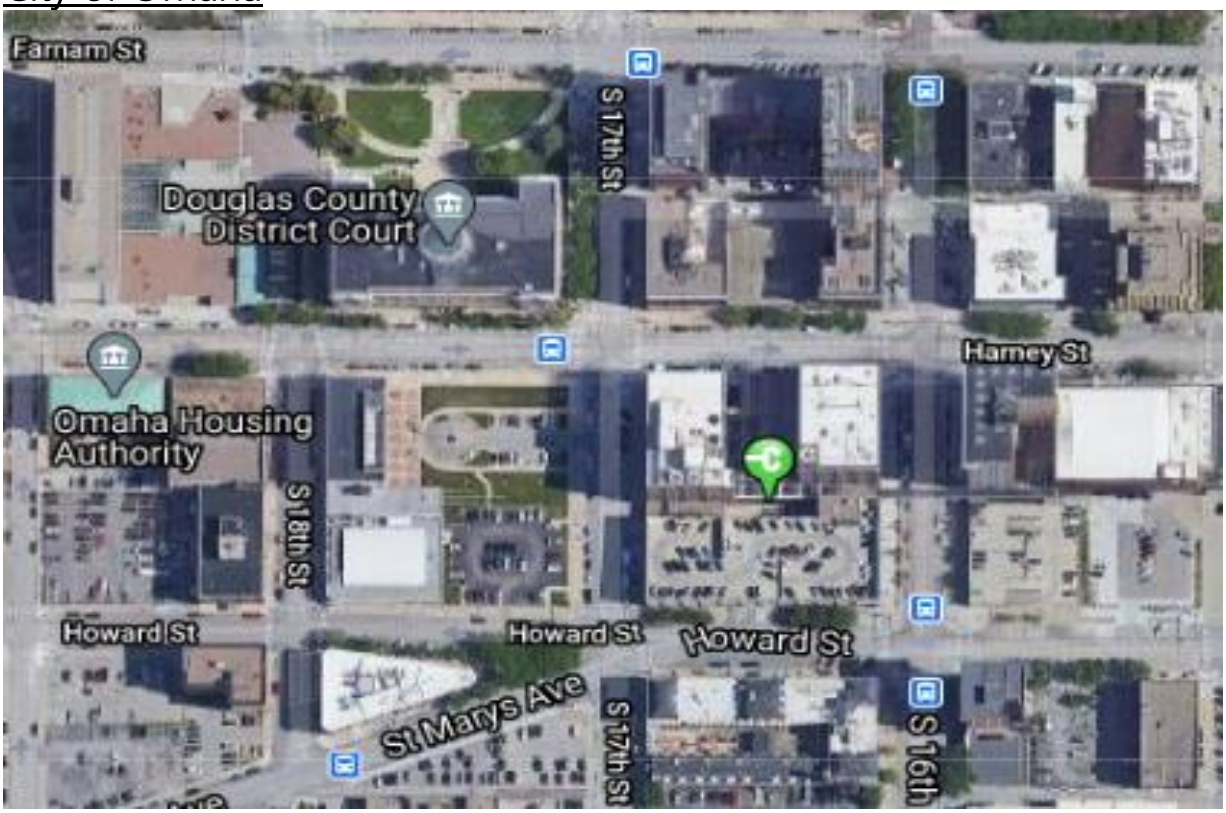
March 2022



OPPD summary savings

Overall Economic Savings		$9,834.72
Overall Emission Reductions (lbs.)	CO2	55,364.37
	CO	1,209.12
	SO2	(85.7731)
	NOX	27.8323
	CH4	3.4210
	VOC	39.8205

City of Omaha



Economic Saving Data (Fuel & Maintenance Cost Savings):

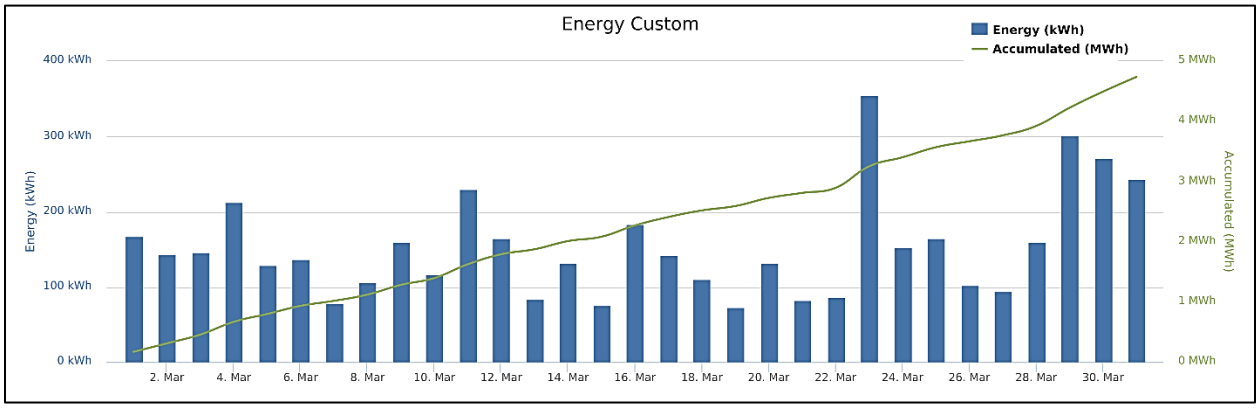
		This Month (March)	All Time
Miles Driven		**19,093.93**	**104,277.52**
Energy Consumed(kWh)		**4,737.95**	**28,779.77**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$2,794.91**	**$12,649.29**
	Usage Cost Using EV(Electricity)	**$418.60**	**$2,480.51**
	Total Fuel Saving	**$2,376.31**	**$10,168.78**
Other Cost Saving	**CV Costs**	**$1,164.73**	**$6,261.78**
	EV Costs	**$496.44**	**$2,622.85**
	Total Other Cost Saving	**$668.29**	**$3,638.94**
Overall Economic Savings		**$3,044.60**	**$13,807.72**

Environmental Saving Data (Reduction in Emissions):

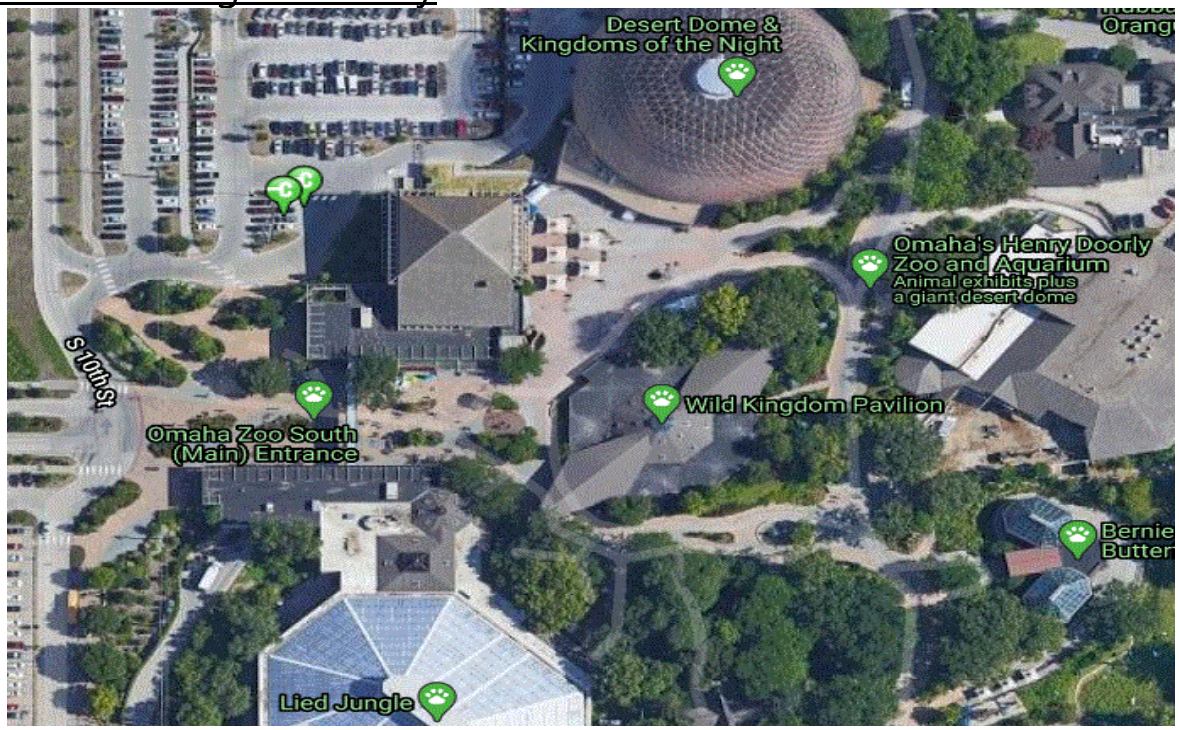
		This Month (March)	All Time
Miles Driven		**19093.9304**	**104277.5158**
Energy Consumed (kWh)		**4737.9480**	**28779.7690**
Co2 Emissions (lbs.)	**CV (Gas)**	**14,904.11**	**81,738.15**
	EV (Electricity)	**3,272.05**	**34,620.91**
	Total Fuel Saving	**11,632.05**	**47,117.23**
Co Emissions (lbs.)	**CV (Gas)**	**120.4376**	**657.7449**
	EV (Electricity)	**2.9373**	**25.1285**
	Total Fuel Saving	**117.5003**	**632.6163**
So2 Emissions (lbs.)	**CV (Gas)**	**0.1768**	**0.9655**
	EV (Electricity)	**7.1818**	**66.1039**
	Total Fuel Saving	**(7.0050)**	**(65.1384)**
Nox Emissions (lbs.)	**CV (Gas)**	**5.0514**	**27.5871**
	EV (Electricity)	**4.9903**	**96.9218**
	Total Fuel Saving	**0.0611**	**(69.3347)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.2820**	**1.6662**
	EV (Electricity)	**0.3295**	**2.9159**
	Total Fuel Saving	**(0.0474)**	**(1.2497)**
VOC Emissions (lbs.)	**CV (Gas)**	**7.0888**	**38.7139**
	EV (Electricity)	**0.0456**	**0.5722**
	Total Fuel Saving	**7.0432**	**38.1417**

Energy Consumption Data

March 2022



Omaha Zoological Society



Total Economic Saving Data (Fuel & Maintenance Cost Savings):

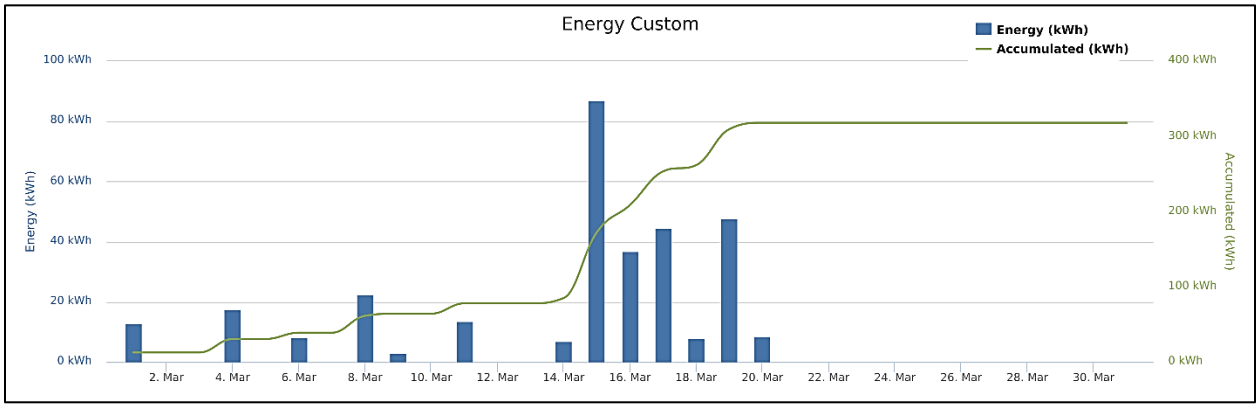
		This Month (March)	All Time
Miles Driven		**1281.21**	**24243.49**
Energy Consumed(kWh)		**317.92**	**6984.87**
Fuel Cost Saving	**Usage Cost Using Cv(Gas)**	**$189.99**	**$2,737.47**
	Usage Cost Using EV(Electricity)	**$28.09**	**$601.22**
	Total Fuel Saving	**$161.90**	**$2,136.25**
Other Cost Saving	**Cv Costs**	**$78.15**	**$1,417.70**
	EV Costs	**$33.31**	**$575.82**
	Total Other Cost Saving	**$44.84**	**$841.87**
Overall Economic Savings		**$206.74**	**$2,978.12**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**1,281.21**	**24,243.49**
Energy Consumed (kWh)		**317.92**	**6,984.87**
Co2 Emissions (lbs.)	**CV (Gas)**	**1,000.07**	**19,134.93**
	EV (Electricity)	**596.10**	**11,708.73**
	Total Fuel Saving	**403.97**	**7,426.20**
Co Emissions (lbs.)	**CV (Gas)**	**8.0814**	**152.9191**
	EV (Electricity)	**0.5658**	**9.4324**
	Total Fuel Saving	**7.5156**	**143.4868**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0119**	**0.2245**
	EV (Electricity)	**0.9145**	**19.7031**
	Total Fuel Saving	**(0.9027)**	**(19.4786)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.3389**	**6.4137**
	EV (Electricity)	**0.4676**	**15.5606**
	Total Fuel Saving	**(0.1287)**	**(9.1469)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0189**	**0.4358**
	EV (Electricity)	**0.0643**	**1.1031**
	Total Fuel Saving	**(0.0454)**	**(0.6673)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.4757**	**9.0006**
	EV (Electricity)	**0.0068**	**0.1778**
	Total Fuel Saving	**0.4689**	**8.8228**

Energy Consumption Data

March 2022



Papio-Missouri NRD

Economic Saving Data (Fuel & Maintenance Cost Savings):

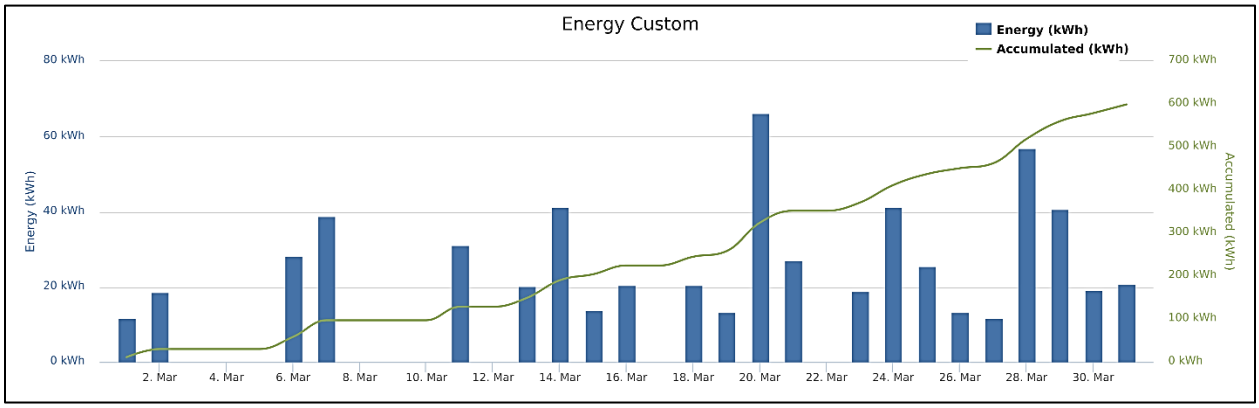
		This Month (March)	All Time
Miles Driven		**2,416.09**	**91,676.40**
Energy Consumed(kWh)		**599.526**	**26,918.42**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$357.12**	**$9,933.16**
	Usage Cost Using EV(Electricity)	**$52.97**	**$2,367.09**
	Total Fuel Saving	**$304.15**	**$7,566.07**
Other Cost Saving	**CV Costs**	**$147.38**	**$4,666.43**
	EV Costs	**$62.82**	**$1,558.39**
	Total Other Cost Saving	**$84.56**	**$3,108.04**
Overall Economic Savings		**$388.71**	**$10,674.11**

Environmental Saving Data (Reduction in Emissions):

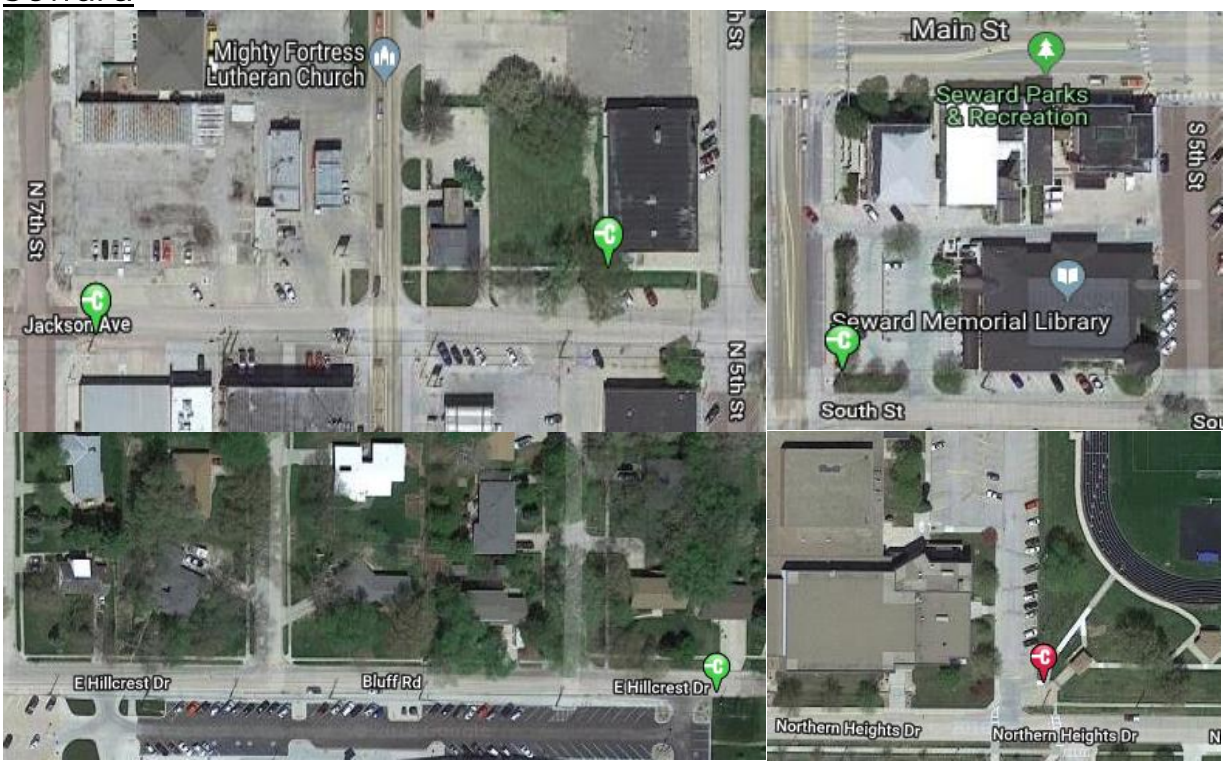
		This Month (March)	All Time
Miles Driven		**2,416.09**	**91,676.40**
Energy Consumed (kWh)		**599.53**	**26,918.42**
Co2 Emissions (lbs.)	**CV (Gas)**	**1,885.92**	**74,757.73**
	EV (Electricity)	**1,124.12**	**42,037.29**
	Total Fuel Saving	**761.80**	**32,720.43**
Co Emissions (lbs.)	**CV (Gas)**	**15.2398**	**578.2616**
	EV (Electricity)	**1.0670**	**37.0536**
	Total Fuel Saving	**14.1728**	**541.2079**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0224**	**0.8489**
	EV (Electricity)	**1.7246**	**85.1616**
	Total Fuel Saving	**(1.7022)**	**(84.3127)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.6392**	**24.2534**
	EV (Electricity)	**0.8818**	**62.4108**
	Total Fuel Saving	**(0.2426)**	**(38.1574)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0357**	**2.5300**
	EV (Electricity)	**0.1213**	**4.1161**
	Total Fuel Saving	**(0.0856)**	**(1.5861)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.8970**	**34.0356**
	EV (Electricity)	**0.0128**	**0.6766**
	Total Fuel Saving	**0.8842**	**33.3590**

Energy Consumption Data

March 2022



Seward



Economic Saving Data (Fuel & Maintenance Cost Savings):

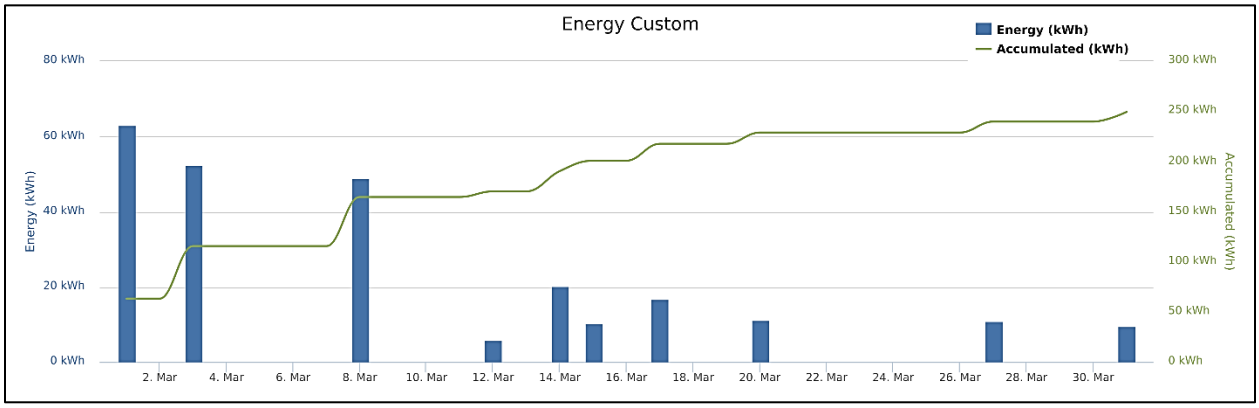
		This Month (March)	All Time
Miles Driven		**1,004.62**	**51,465.77**
Energy Consumed(kWh)		**249.29**	**15,072.48**
Fuel Cost Saving	**Usage Cost Using Cv(Gas)**	**$143.79**	**$5,338.58**
	Usage Cost Using EV(Electricity)	**$24.43**	**$1,473.25**
	Total Fuel Saving	**$119.36**	**$3,865.33**
Other Cost Saving	**Cv Costs**	**$61.28**	**$2,687.82**
	EV Costs	**$26.12**	**$1,257.12**
	Total Other Cost Saving	**$35.16**	**$1,430.71**
Overall Economic Savings		**$154.52**	**$5,296.04**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**1,004.62**	**51,465.77**
Energy Consumed (kWh)		**249.29**	**15,072.48**
Co2 Emissions (lbs.)	**CV (Gas)**	**784.17**	**42,246.66**
	EV (Electricity)	**172.16**	**15,923.37**
	Total Fuel Saving	**612.02**	**26,323.30**
Co Emissions (lbs.)	**CV (Gas)**	**6.3368**	**502.0273**
	EV (Electricity)	**0.1545**	**11.9671**
	Total Fuel Saving	**6.1822**	**490.0602**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0093**	**0.9594**
	EV (Electricity)	**0.3779**	**36.7150**
	Total Fuel Saving	**(0.3686)**	**(35.7556)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.2658**	**29.1589**
	EV (Electricity)	**0.2626**	**45.6451**
	Total Fuel Saving	**0.0032**	**(16.4862)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0148**	**2.1351**
	EV (Electricity)	**0.0173**	**1.0992**
	Total Fuel Saving	**(0.0025)**	**1.0359**
VOC Emissions (lbs.)	**CV (Gas)**	**0.3730**	**20.2199**
	EV (Electricity)	**0.0024**	**0.2854**
	Total Fuel Saving	**0.3706**	**19.9345**

Energy Consumption Data

March 2022



South Sioux City

Economic Saving Data (Fuel & Maintenance Cost Savings):

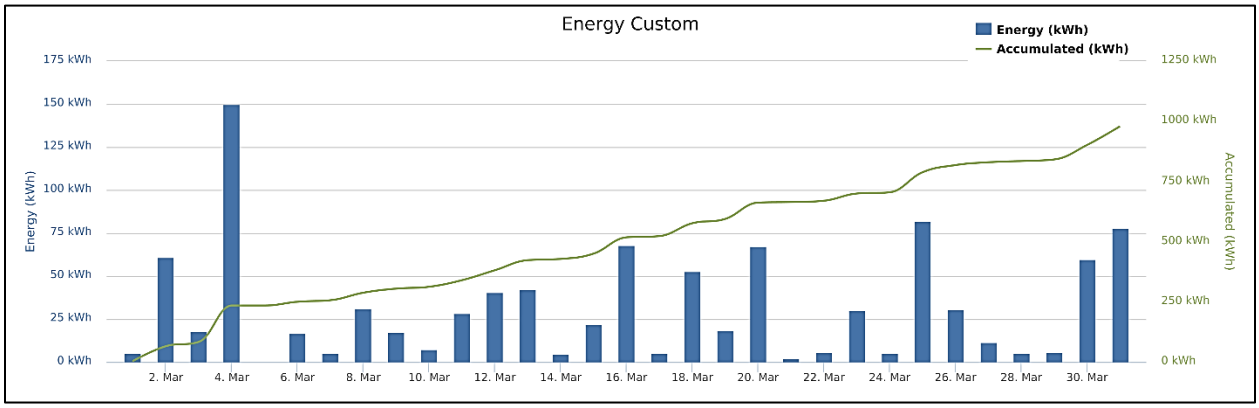
		This Month (March)	All Time
Miles Driven		**3,945.23**	**176,048.83**
Energy Consumed(KWh)		**978.965**	**51,658.27**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$574.96**	**$18,203.51**
	Usage Cost Using EV(Electricity)	**$86.49**	**$4,433.06**
	Total Fuel Saving	**$488.47**	**$13,770.45**
Other Cost Saving	**CV Costs**	**$240.66**	**$9,104.95**
	EV Costs	**$102.58**	**$4,173.96**
	Total Other Cost Saving	**$138.08**	**$4,930.99**
Overall Economic Savings		**$626.55**	**$18,701.44**

Environmental Saving Data (Reduction in Emissions):

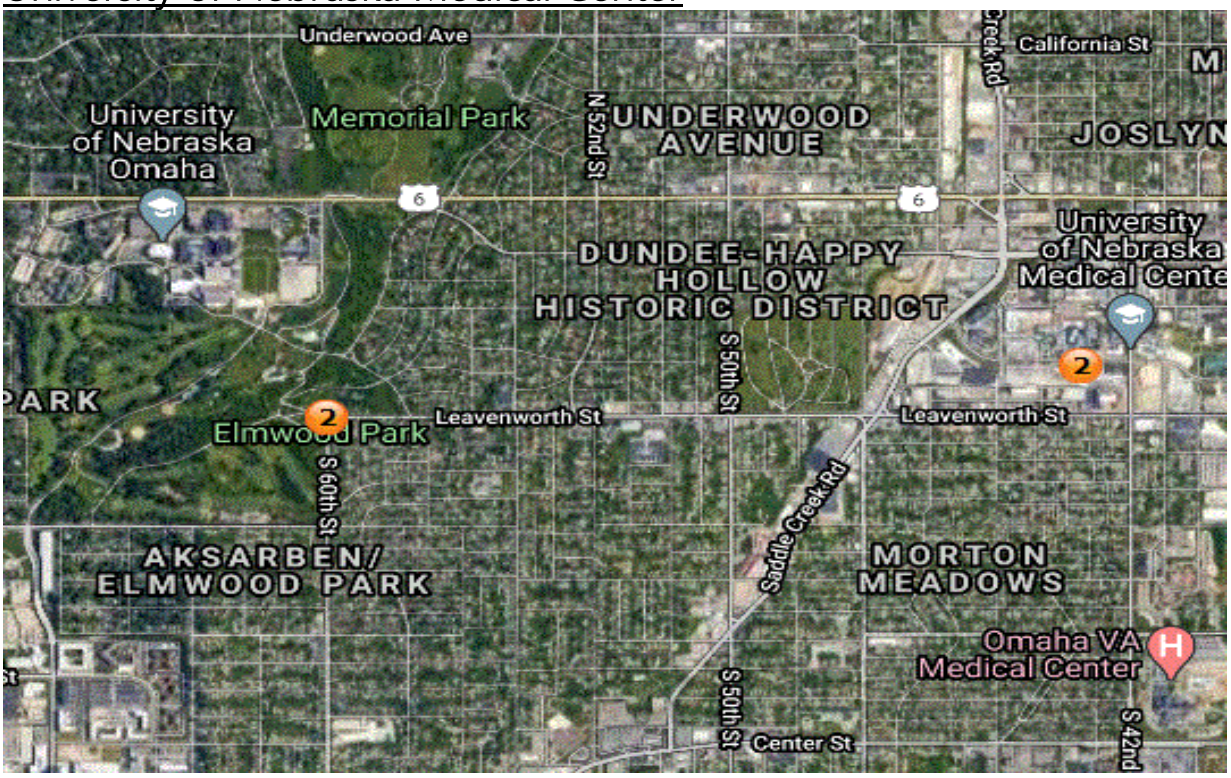
		This Month (March)	All Time
Miles Driven		**3945.2290**	**176048.8340**
Energy Consumed (Kwh)		**978.9650**	**51,658.27**
Co2 Emissions (lbs.)	**CV (Gas)**	**3,079.52**	**145,213.19**
	EV (Electricity)	**676.08**	**54,898.37**
	Total Fuel Saving	**2,403.44**	**90,314.82**
Co Emissions (lbs.)	**CV (Gas)**	**24.8851**	**1,715.9306**
	EV (Electricity)	**0.6069**	**41.7993**
	Total Fuel Saving	**24.2782**	**1,674.1313**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0365**	**3.2780**
	EV (Electricity)	**1.4839**	**126.3462**
	Total Fuel Saving	**(1.4474)**	**(123.0682)**
Nox Emissions (lbs.)	**CV (Gas)**	**1.0437**	**99.6286**
	EV (Electricity)	**1.0311**	**149.4423**
	Total Fuel Saving	**0.0126**	**(49.8137)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0583**	**7.3565**
	EV (Electricity)	**0.0681**	**3.8346**
	Total Fuel Saving	**(0.0098)**	**3.5219**
VOC Emissions (lbs.)	**CV (Gas)**	**1.4647**	**69.1608**
	EV (Electricity)	**0.0094**	**0.9783**
	Total Fuel Saving	**1.4553**	**68.1825**

Energy Consumption Data

March 2022



University of Nebraska Medical Center



Total Economic Saving Data (Fuel & Maintenance Cost Savings):

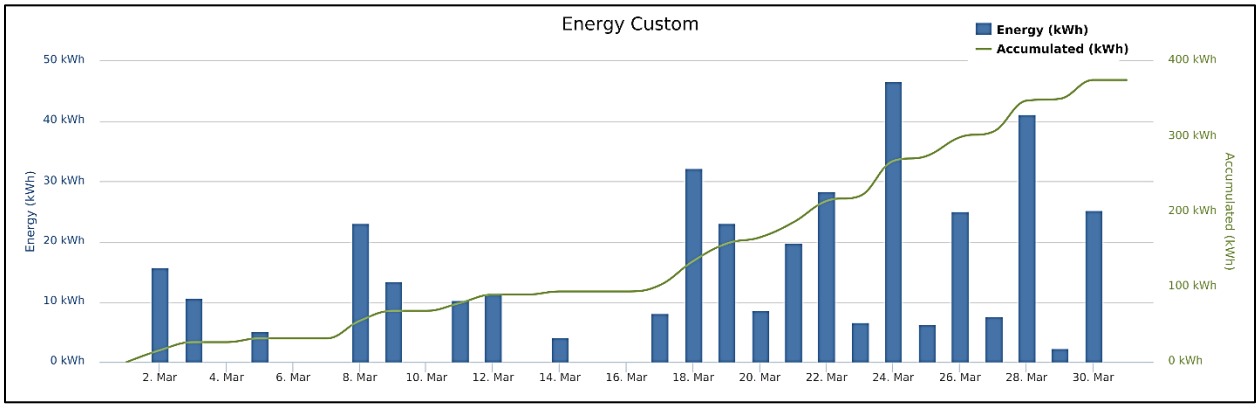
		This Month (March)	All Time
Miles Driven		**1,511.00**	**22,811.75**
Energy Consumed(kWh)		**374.938**	**6,529.54**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$223.42**	**$2,576.53**
	Usage Cost Using EV(Electricity)	**$33.13**	**$563.10**
	Total Fuel Saving	**$190.29**	**$2,013.43**
Other Cost Saving	**CV Costs**	**$92.17**	**$1,331.31**
	EV Costs	**$39.29**	**$539.44**
	Total Other Cost Saving	**$52.89**	**$791.87**
Overall Economic Savings		**$243.18**	**$2,805.30**

Environmental Saving Data (Reduction in Emissions):

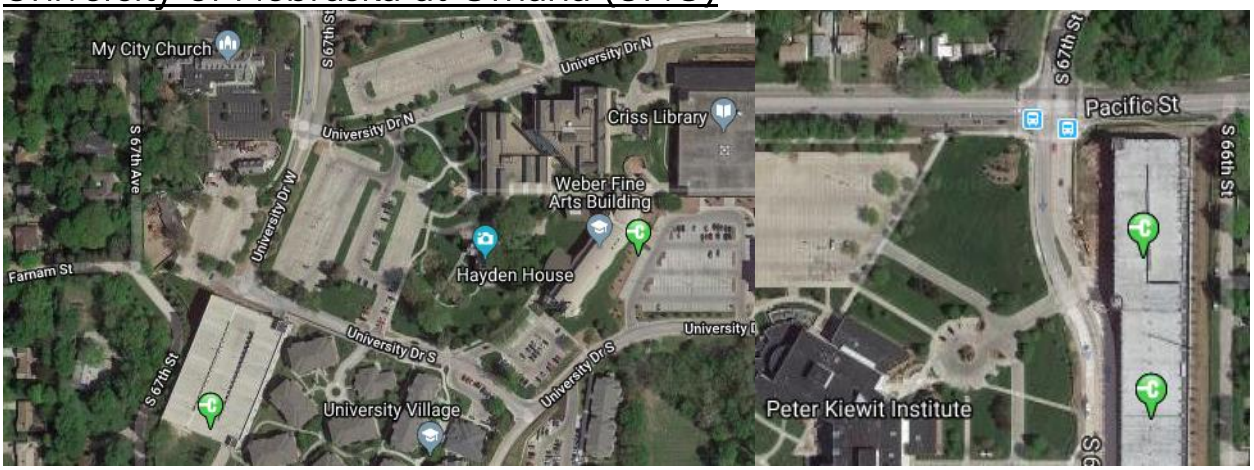
		This Month (March)	All Time
Miles Driven		**1,511.00**	**22,811.75**
Energy Consumed (kWh)		**374.938**	**6,529.54**
Co2 Emissions (lbs.)	**CV (Gas)**	**1179.44**	**18014.09**
	EV (Electricity)	**703.02**	**10978.34**
	Total Fuel Saving	**476.42**	**7035.75**
Co Emissions (lbs.)	**CV (Gas)**	**9.5308**	**143.8882**
	EV (Electricity)	**0.6673**	**8.9482**
	Total Fuel Saving	**8.8636**	**134.9400**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0140**	**0.2112**
	EV (Electricity)	**1.0785**	**18.5097**
	Total Fuel Saving	**(1.0645)**	**(18.2984)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.3997**	**6.0349**
	EV (Electricity)	**0.5515**	**14.3456**
	Total Fuel Saving	**(0.1517)**	**(8.3106)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0223**	**0.4134**
	EV (Electricity)	**0.0759**	**1.0430**
	Total Fuel Saving	**(0.0535)**	**(0.6296)**
VOC Emissions (lbs.)	**CV (Gas)**	**0.5610**	**8.4690**
	EV (Electricity)	**0.0080**	**0.1650**
	Total Fuel Saving	**0.5530**	**8.3041**

Energy Consumption Data

March 2022



University of Nebraska at Omaha (UNO)



Economic Saving Data (Fuel & Maintenance Cost Savings)

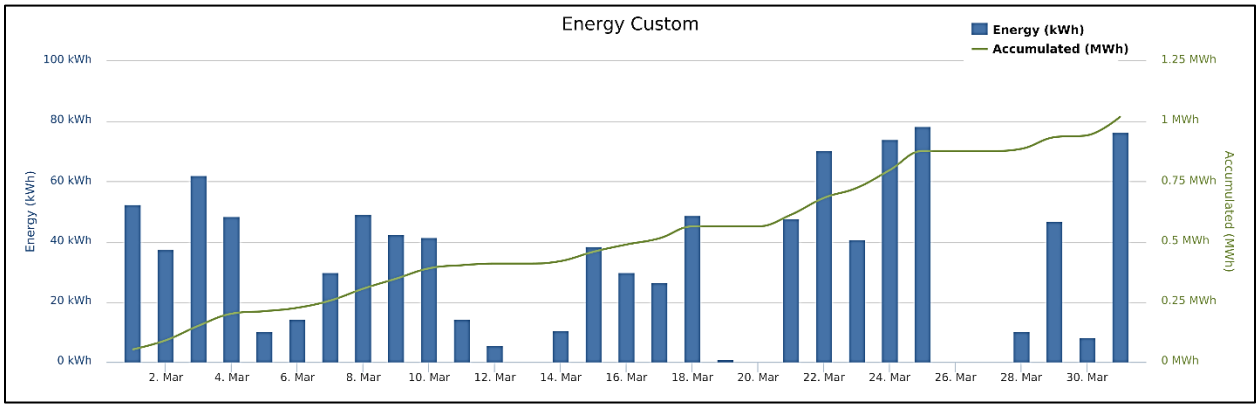
		This Month (March)	All Time
Miles Driven		**4,100.86**	**107,584.30**
Energy Consumed(kWh)		**1017.584**	**31,386.22**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$598.91**	**$11,598.05**
	Usage Cost Using EV(Electricity)	**$89.90**	**$2,803.21**
	Total Fuel Saving	**$509.01**	**$8,794.84**
Other Cost Saving	**CV Costs**	**$250.15**	**$5,508.84**
	EV Costs	**$106.62**	**$1,993.89**
	Total Other Cost Saving	**$143.53**	**$3,514.95**
Overall Economic Savings		**$652.54**	**$12,309.79**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**4,100.86**	**107,584.30**
Energy Consumed (kWh)		**1,017.58**	**31,386.22**
Co2 Emissions (lbs.)	**CV (Gas)**	**3,201.00**	**86,418.50**
	EV (Electricity)	**1,907.99**	**48,507.90**
	Total Fuel Saving	**1,293.01**	**37,910.59**
Co Emissions (lbs.)	**CV (Gas)**	**25.8668**	**678.6768**
	EV (Electricity)	**1.8110**	**41.3402**
	Total Fuel Saving	**24.0558**	**637.3365**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0380**	**0.9962**
	EV (Electricity)	**2.9272**	**98.7941**
	Total Fuel Saving	**(2.8892)**	**(97.7980)**
Nox Emissions (lbs.)	**CV (Gas)**	**1.0849**	**28.4658**
	EV (Electricity)	**1.4967**	**70.4444**
	Total Fuel Saving	**(0.4118)**	**(41.9786)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0606**	**3.0902**
	EV (Electricity)	**0.2059**	**4.8460**
	Total Fuel Saving	**(0.1453)**	**(1.7558)**
VOC Emissions (lbs.)	**CV (Gas)**	**1.5225**	**28.6694**
	EV (Electricity)	**0.0217**	**0.7704**
	Total Fuel Saving	**1.5007**	**27.8991**

Energy Consumption Data

March 2022



Valley

Economic Saving Data (Fuel & Maintenance Cost Savings):

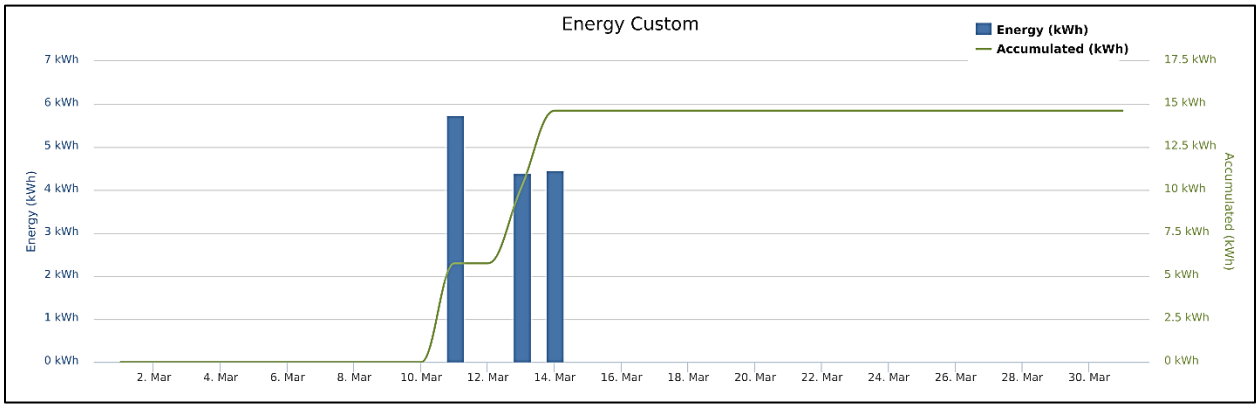
		This Month (March)	All Time
Miles Driven		**58.89**	**6,882.95**
Energy Consumed(kWh)		**14.61**	**2,027.19**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$8.80**	**$716.64**
	Usage Cost Using EV(Electricity)	**$1.29**	**$185.66**
	Total Fuel Saving	**$7.51**	**$530.98**
Other Cost Saving	**CV Costs**	**$3.59**	**$342.51**
	EV Costs	**$1.53**	**$156.41**
	Total Other Cost Saving	**$2.06**	**$186.10**
Overall Economic Savings		**$9.57**	**$717.08**

Environmental Saving Data (Reduction in Emissions):

		This Month (March)	All Time
Miles Driven		**58.89**	**6,882.95**
Energy Consumed (kWh)		**14.61**	**2,027.19**
Co2 Emissions (lbs.)	**CV (Gas)**	**45.96**	**5,651.49**
	EV (Electricity)	**27.40**	**2,478.03**
	Total Fuel Saving	**18.57**	**3,173.46**
Co Emissions (lbs.)	**CV (Gas)**	**0.3714**	**65.7046**
	EV (Electricity)	**0.0260**	**2.1333**
	Total Fuel Saving	**0.3454**	**63.5713**
So2 Emissions (lbs.)	**CV (Gas)**	**0.0005**	**0.1244**
	EV (Electricity)	**0.0420**	**6.2756**
	Total Fuel Saving	**(0.0415)**	**(6.1512)**
Nox Emissions (lbs.)	**CV (Gas)**	**0.0156**	**3.7739**
	EV (Electricity)	**0.0215**	**4.0728**
	Total Fuel Saving	**(0.0059)**	**(0.2989)**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.0009**	**0.3078**
	EV (Electricity)	**0.0030**	**0.2079**
	Total Fuel Saving	**(0.0021)**	**0.0999**
VOC Emissions (lbs.)	**CV (Gas)**	**0.0219**	**2.6947**
	EV (Electricity)	**0.0003**	**0.0459**
	Total Fuel Saving	**0.0215**	**2.6488**

Energy Consumption Data

March 2022



Wayne

Economic Saving Data (Fuel & Maintenance Cost Savings):

		This Month (March)	All Time
Miles Driven		**0**	**7,571.38**
Energy Consumed(kWh)		**0**	**2,262.30**
Fuel Cost Saving	**Usage Cost Using CV(Gas)**	**$0.00**	**$773.14**
	Usage Cost Using EV(Electricity)	**$0.00**	**$243.58**
	Total Fuel Saving	**$0.00**	**$529.57**
Other Cost Saving	**CV Costs**	**$0.00**	**$347.07**
	EV Costs	**$0.00**	**$136.56**
	Total other cost Saving	**$0.00**	**$210.51**
Overall Economic Savings		**$0.00**	**$740.08**

Environmental Saving Data (Reduction in Emissions):

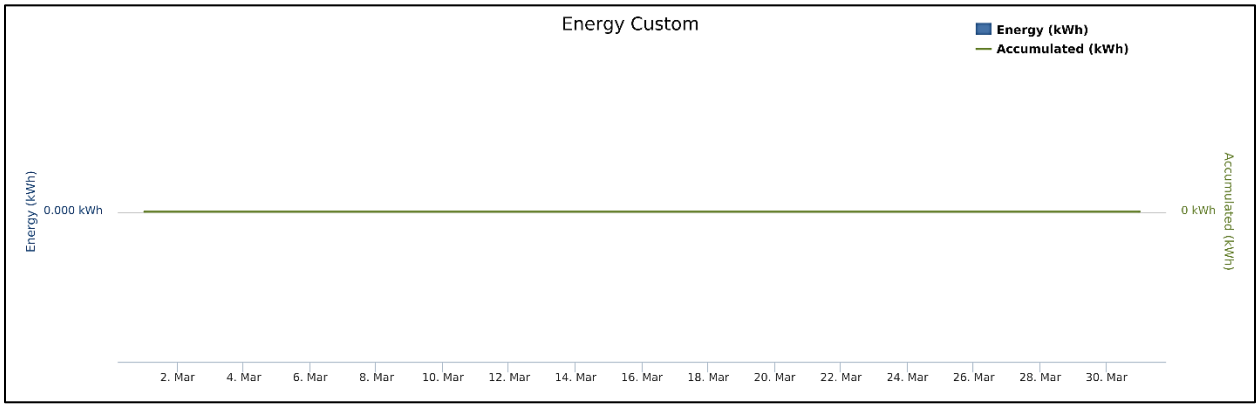
		This Month (March)	All Time
Miles Driven		**0.0000**	**7,571.38**
Energy Consumed (kWh)		**0.0000**	**2,262.30**
Co2 Emissions (lbs.)	**CV (Gas)**	**0.000**	**6258.399**
	EV (Electricity)	**0.000**	**2571.657**
	Total Fuel Saving	**0.000**	**3686.741**
Co Emissions (lbs.)	**CV (Gas)**	**0.000**	**64.837**
	EV (Electricity)	**0.000**	**0.671**
	Total Fuel Saving	**0.000**	**64.166**
So2 Emissions (lbs.)	**CV (Gas)**	**0.000**	**0.117**
	EV (Electricity)	**0.000**	**5.248**
	Total Fuel Saving	**0.000**	**-5.131**
Nox Emissions (lbs.)	**CV (Gas)**	**0.000**	**3.499**
	EV (Electricity)	**0.000**	**43.364**
	Total Fuel Saving	**0.000**	**-39.865**
CH4 Emissions (lbs.)	**CV (Gas)**	**0.000**	**0.348**
	EV (Electricity)	**0.000**	**0.096**
	Total Fuel Saving	**0.000**	**0.252**
VOC Emissions (lbs.)	**CV (Gas)**	**0.000**	**2.917**
	EV (Electricity)	**0.000**	**0.065**
	Total Fuel Saving	**0.000**	**2.852**

CNG data – No new data for March 2022, this is from previous calculations.

		Total
Miles driven		24,879.83
Fuel cost Savings:	Usage Cost Using CV (Gas)	$2,687.75
	Usage Cost Using CNG (Natural gas)	$1,538.65
	Total Fuel Savings	$1,149.10
CO2 Emissions (lbs.)	CV (Gas)	22,227.51
	CNG (Natural Gas)	17,127.65
	Overall Emission Reductions	5,099.86
CO Emissions (lbs.)	CV (Gas)	496
	CNG (Natural Gas)	924.54
	Overall Emission Reductions	(428.54)
SO2 Emissions (lbs.)	CV (Gas)	0.631
	CNG (Natural Gas)	0.084
	Overall Emission Reductions	0.547
NOx Emissions (lbs.)	CV (Gas)	13.44
	CNG (Natural Gas)	15.91
	Overall Emission Reductions	(2.47)
CH4 Emissions (lbs.)	CV (Gas)	0.73
	CNG (Natural Gas)	27.07
	Overall Emission Reductions	(26.34)
VOC Emissions (lbs.)	CV (Gas)	11.38
	CNG (Natural Gas)	12.98
	Overall Emission Reductions	(1.6)

Energy Consumption Data

March 2022



Wayne summary savings

Overall Economic Savings		$1,889.18
Overall Emission Reductions (lbs.)	CO2	8,786.60
	CO	64.17
	SO2	(5.1314)
	NOX	(39.8648)
	CH4	0.2522
	VOC	2.8521