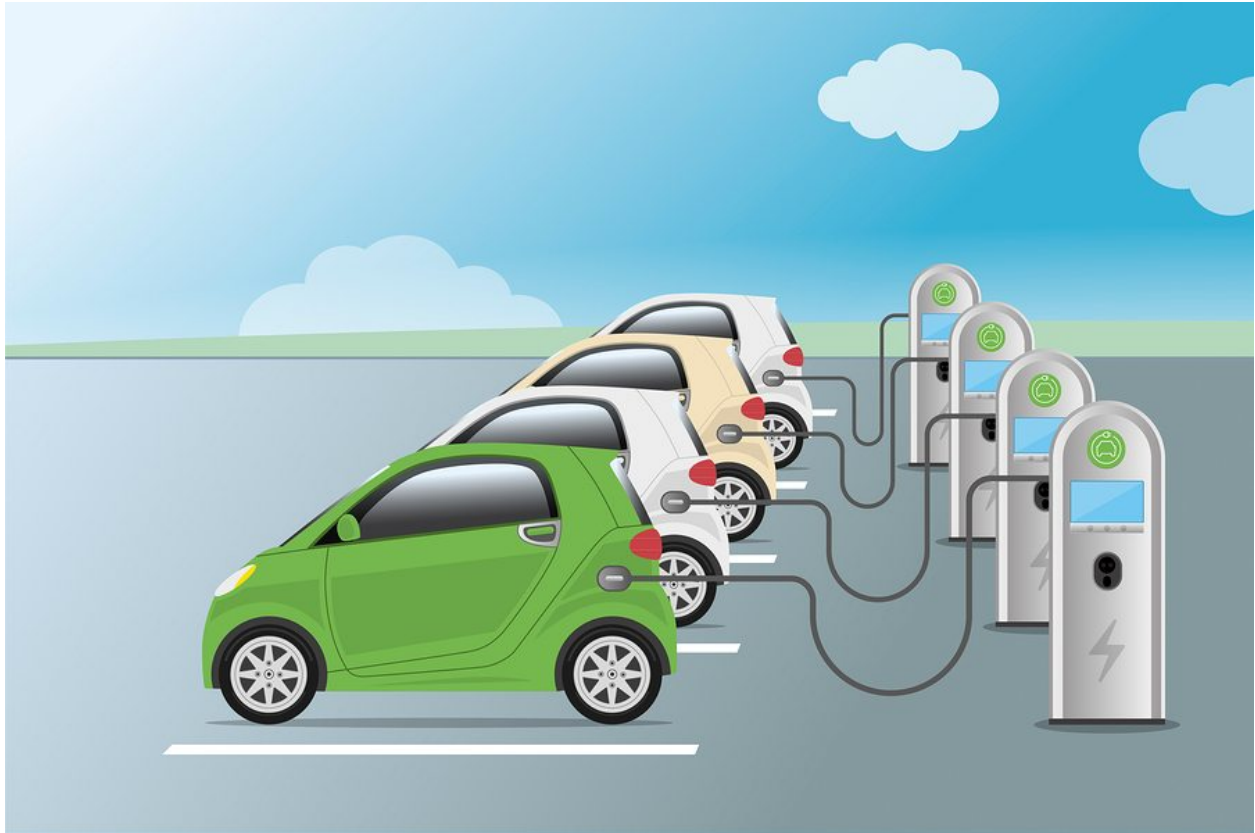


City of Columbus Electric Vehicle Fleet Adoption Analysis



Environment, Economics, Development and Sustainability Capstone Project

Spring 2019

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Executive Summary

The city of Columbus has significantly invested in analyzing the future of sustainable mobility through the Smart City grant that the city received in 2016. This project served as the undergraduate capstone project for five students in the Environment, Economy, Development, and Sustainability major at The Ohio State University. Work on this project occurred from February 2019 to April 2019 and was presented at the Environmental Professionals Network April 2019 meeting at The Ohio Union at The Ohio State University. The students collaborated with the city of Columbus, SMART Columbus, and faculty members in the College of Food, Agriculture, and Environmental Sciences at The Ohio State University.

The principal research questions the group decided to pursue were, “What is the fiscal value in incorporating 93 of these electric vehicles (EVs) into the city fleet, and what recommendations can be made regarding future EV development?” To help answer these questions, the group evaluated the investment, maintenance and fuel costs of EVs versus gasoline vehicles. Next we conducted a Net Present Value cost analysis of the EVs being incorporated into the city’s fleet versus conventional vehicles already used by the city that would otherwise have been purchased. In addition to recommendations for the city of Columbus, we also researched the environmental initiatives undertaken by other American cities’ fleets, market research of existing and future electric vehicles, and rudimentary carbon dioxide (CO₂) savings analysis.

Main findings can be summarized to highlight that EVs are substantially less expensive and are lower-emitting than conventional vehicles (i.e. the Ford Explorer). Additionally, gasoline prices will influence the magnitude of the savings derived from switching to EVs for the city’s

fleet. Our findings led to principal recommendations of continuing with the implementation of small EVs in the city fleet, to eventual incorporation of electric trucks to replace large fleet vehicles.

Introduction

The City of Columbus received a \$50 million-dollar award from the United States Department of Transportation (USDOT) and Vulcan Inc. as the sole winner of the Smart City grant. Columbus received this award in the Summer of 2016, for the purpose of developing the city into a test track for intelligent transportation systems. The city beat the six other finalists of San Francisco, Kansas City, Denver, Austin, Pittsburgh, and Portland, to receive this grant.¹ The city of Columbus decided to pursue ambitious plans to incorporate 300 Electric Vehicles (EVs) in Central Ohio government fleets by 2020. As of April 2019, the city has added 93 of these EVs to serve janitorial workers, police and fire administrators, and code enforcers.²

The motivation for this project is to not only maintain Columbus's strong reputation of environmental stewardship in their fleet, but to also serve as testing ground for other American cities to adopt greener practices for their city fleets as well. The city wishes to understand better the financial and environmental benefits from incorporating 300 electric vehicles into their fleet. The research group's main focus was to look at this motivation principally from the economic viewpoint, by running Net Present Value analyses to determine long-term net cost savings from this decision of the city. The City Sustainability Goals that this project addresses include, becoming a world-class logistics leader, improving people's quality of life, and fostering sustainability.³

Columbus is no stranger to sustainable transportation. The city received the Greenest Fleet Award in 2011. In order to examine whether this incorporating EVs into the city fleet is a

worthwhile investment, our team conducted an economic analysis of this decision. The group developed the following objectives for this project:

- Conduct a Net Present Value analysis on the incorporation of the new Nissan LEAF, Ford Fusion Energi, and Chevy Bolt.
- Research current and future EVs that will come available to the market.
- Investigate case studies from Atlanta and Philadelphia to compare Columbus's fleet and goals to other cities.
- Evaluate CO2 emissions savings from the city switching their vehicles to EVs.

From these objectives the group reached the conclusion that EVs will generate greater fiscal returns in correlation with higher future gas prices, that EVs generate considerably less CO2 emissions, and that the overall lifetime cost of EVs are significantly cheaper than those of conventional vehicles. These recommendations are based on short (one-year) and medium (five-year) strategies, and encourage the city of Columbus to continue to implement the small EVs in lieu of small conventional vehicles, and eventually replace larger vehicles with electric trucks, and continue to increase its EV fleet implementation continuing to be a leader in environmental transportation initiatives.

Methods

The group used a variety of research methods throughout the scope of the project. Much of the research came from communication with the city of Columbus via email; the city shared information on Columbus's electric vehicle fleet gathered prior to this project. We also relied on case studies from other cities (specifically Philadelphia and Atlanta) using the city sustainability websites. Furthermore, the group retrieved research about vehicles from speaking directly to

experts at local dealerships and reading automotive company sustainability reports. Lastly, we used mathematical calculations to gather information for our NPV analysis.

CO2 Emissions Reductions

This study analyzed greenhouse gases emissions from driving only (rather than looking at the whole life cycle of the vehicles or through electricity generation). EVs emit 0 tons of greenhouse gases per year.

The implementation of EVs results in notable savings in greenhouse gas emissions. The traditional gasoline-powered 2018 Ford Focus releases ~ 0.00016 tons of carbon dioxide (CO₂) per mile⁴. As the city of Columbus estimates each vehicle traveling 11,000 miles per year, this results in a CO₂ savings of ~ 1.717203 tons annually per vehicle after switching to emissions-free EVs. The traditional gasoline-powered 2019 Ford Explorer releases ~ 0.0004 tons of CO₂ per mile⁴. After switching to emissions-free EVs this will result in a reduction of 4.9 tons of CO₂ annually per vehicle. See figures 1 and 2 for the differences in emissions per mile and per year for a gasoline-powered 2019 Ford Explorer and a 2018 Ford Focus.

How Columbus Compares to Other Cities

The city of Columbus stands out as a leader among similar cities adopting EVs into their fleets such as Philadelphia and Atlanta. Whether it is the number of current vehicles adopted or future goals the cities have, Columbus is ambitious in both aspects. The population of the city of Columbus sits at about 880,000 people, with a metro population of about 2 million and comprises a total of 223 square miles.⁵ The city of Columbus currently has a 6,200-vehicle fleet, 92 of which are electric vehicles or electric-hybrid vehicles.³ By the end of 2020 Columbus plans

on adding an additional 107 electric or hybrid vehicles, switching out a total of 200 vehicles in their fleet from classic gasoline combustion vehicles to fully electric or electric-hybrid vehicles.³

The city of Philadelphia, Pennsylvania is one our team benchmarked against Columbus. The population of the city of Philadelphia totals approximately 1.5 Million people, with a metro population of about 6 million.⁶ Philadelphia comprises a total of 142 square miles and has a fleet of 6,000 vehicles.⁷ However, it has implemented significantly fewer electric and hybrid vehicles into its fleet than Columbus has. Philadelphia's goal is also much lower than Columbus's goal, striving to implement an additional 20 electric and electric-hybrid vehicles by 2020.⁷ This puts Philadelphia 87 vehicles behind Columbus's goal of 107 electric vehicles implemented by 2020. This disparity could be due to the advantage Columbus received with the Smart City grant that has helped propelled them as a leader in electric vehicle fleet implementation.

The second city compared to Columbus was Atlanta, Georgia. The population of the city of Atlanta is approximately 490,000 with a metro population of about 5.8 million.⁸ Atlanta is comprised of a total of 134 square miles.⁸ Atlanta has a fleet size of 1,500 vehicles, with 50 being electric or electric-hybrids.⁹ While it is smaller than Columbus in population, city size, and fleet number, the city has a focus on electric vehicles. Atlanta has a goal of reducing their total carbon emissions 20% by 2020, yet instead of focusing on electric vehicles in the fleet, they are focusing on ensuring Atlanta is a city where owning an electric vehicle is convenient and realistic for the city's population.⁹

Our team focused on benchmarking Columbus against comparable cities but there are many more that are working towards implementing electric vehicles into their fleet. A common growing trend among many cities is their goal to become more sustainable. The number of electric vehicles in the Columbus fleet is easily quantifiable but is not the true goal. The goal is

to make Columbus a healthier, safer, and cleaner city. It is important to not focus solely on the means but the end result, which is reducing the carbon dioxide emissions in the city.

Costs and Benefits of Fleet Adoption

Initial Costs

The city of Columbus told the team that they had an initial investment cost of \$1.8 million for the 93 vehicles that the city currently owns. While the team was unable to get the price breakdown for the individual vehicle types that were purchased, the city provided that the average cost per vehicle was about \$20,000. The team conducted all calculations using the current MSRP for the vehicles used in the team's calculations, since the team was unsure of actual costs per vehicle to the city. The MSRP for the Focus is about \$18,000, and the MSRP for the Explorer is about \$33,000.

Annual Maintenance Costs

To obtain the operating costs for the calculations, the team called local car dealerships to price maintenance costs over the ten-year useful life that the city expects to see from the vehicles. The team calculated that the maintenance costs for both electric vehicles would be a little less than \$50 per year, and the maintenance costs per year for the Ford Explorer are around \$750, and the Ford Focus maintenance per year would be about \$550. These yearly maintenance costs excluded tire costs, windshield wipers and other miscellaneous maintenance costs that would be similar for almost all vehicle types.

Annual Fuel Costs

The team also used the average miles per year for a fleet vehicle and information from fueleconomy.gov to get the fuel and electricity needs per year for each type of vehicle. For the electric vehicles, the team calculated that the annual electric charging costs for the Nissan LEAF was about \$450, while the Chevy Bolt was about \$430. To evaluate the fuel costs of conventional vehicles, the team calculated the costs using the gas prices of \$2, \$3, and \$4, to ensure that the city could demonstrate the sensitivity of city savings to higher or lower gasoline prices.

Calculating the Net Present Value

To calculate the net present value, the team used the initial investment costs and maintenance costs for each year and discounted them back to find how much of a cost or benefit the city will receive over the lifetime of the investment. The team calculated that the city would receive the following returns displayed in figure 5 which included a discount rate of 3%. Calculate the net present value, we also used different discount rates of 1% and 5% as sensitivities. See figure 7 through figure 12 to see more detail

Barriers

A barrier the city will face is finding vehicles that differ from four door smaller vehicle cars. As the city continues to transition their fleet towards electric vehicles a barrier that will appear is a lack of diversification in electric vehicles available to the city. Common vehicles the city uses and may eventually transition include pickup trucks, ambulances, fire trucks, or even semi type trucks. However, there are currently none of these types of vehicles available on the market in electric form or even in the form of a hybrid. While the electric vehicle market is

with electric pick-up trucks scheduled to come into the market in the near future, the exact extent of what will be available is still unknown.

Limitations

Though our group was able to achieve its original goals and answer its research question, limitations and obstacles were present throughout the process. We had difficulty obtaining specific maintenance costs or maintenance schedules for the EVs and existing conventional vehicles in the city fleets. This initial limitation was resolved through calling local Chevrolet, Nissan, and Ford dealerships to ask about maintenance schedules and records and costs. Another problem that the group faced was no specific discount rate used by the City. The city of Columbus was unable to provide the group with a set discount rate in order for the group to conduct a thorough Net Present Value assessment. Therefore, the data analysts in the group used three discount rates of one, three, and five percent to capture the likely range of discount rates. We used these discount rates to conduct three different annual Net Present Value evaluations. The final limitations that the group dealt with concerned the uncertainty on gasoline prices (used for the Net Present Value evaluations) uncertainty with research of future EVs to reach the market from different auto manufacturing companies, and limited access to other American cities' goals and actions on making their fleets more environmentally-friendly.

Recommendations

After completing our research and analyzing data our team proposed regulations to take place within the next year, the next five years, and the next ten years.

Our recommendation within the next year is for the city to continue implementing electric vehicles into their city's fleet while phasing out conventional gasoline powered vehicles. This will focus on smaller vehicles in the fleet,

Our recommendation within the next five years is for the city is to start implementing larger electric vehicles into the city's fleet, like trucks. As stated in the limitations section there are currently no large electric vehicles on the market.

Our recommendation within the next ten years is for the city is to continue its current momentum of switching out its fleet of conventional electric vehicles for electric vehicles. Our team would want to see a 100% fully electric fleet within the next ten years.

Conclusion

Columbus's switch from gasoline-powered vehicles to EVs has proven to be an environmentally beneficial decision with much potential to see returns on monetary investment. Each vehicle replaced with an EV can save as much as a net 4.9 tons of CO₂ annually—an especially notable reduction with an EV fleet as large as 200 vehicles. Columbus maintains status as a leader in sustainable vehicle fleets among comparable cities with its 2020 fleet goals.

The NPV analysis shows that EVs are substantially less costly than Ford Explorers, and the city will experience larger returns with higher gas prices. On the other hand, when comparing Ford Focuses to EVs, the city may experience a net monetary loss, especially when gas falls around \$2 per gallon.

The study experienced some limitations and barriers such as a current lack of larger-sized EVs and limited access to specific fleet information. Additionally, the City was unable to provide a discount rate for the NPV analysis.

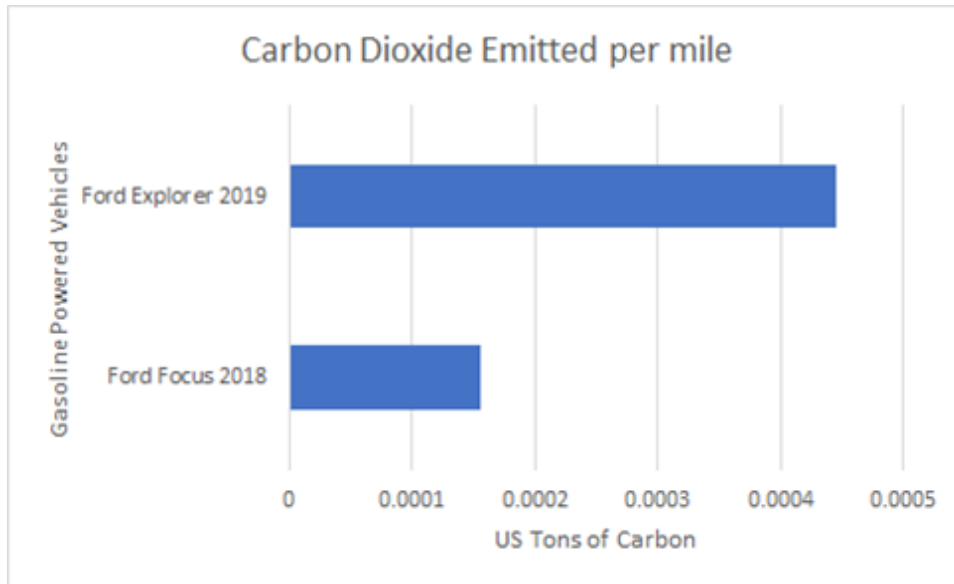
After this extensive research, the group recommends that Columbus continues to implement EVs into their fleet, eventually adding larger vehicles like electric trucks after they are available on the market in the next few years to reach 100% EVs in the next 10 years.

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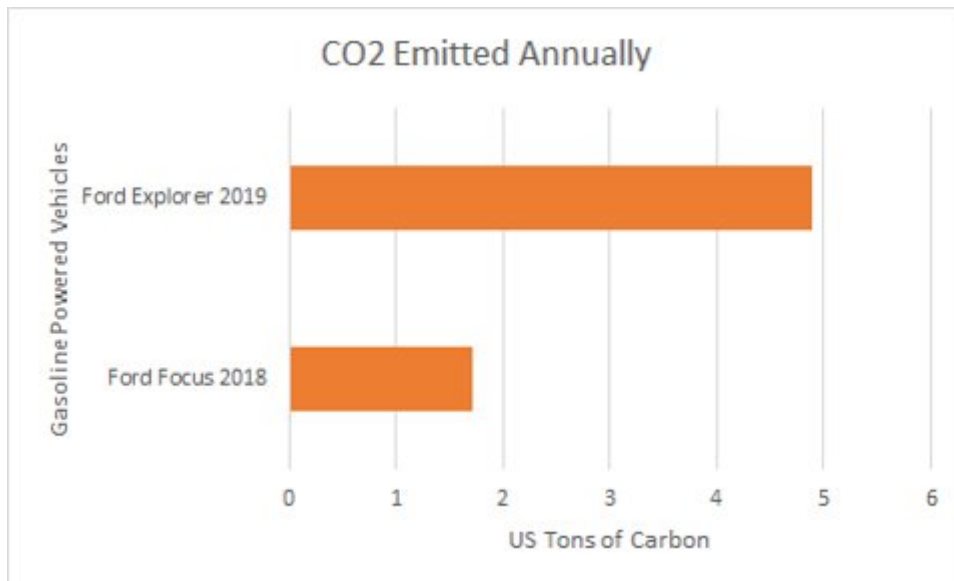
Appendix

Figure 1 – Carbon Dioxide Emissions per Mile by Vehicle



**EV models emit 0.00 tons of Carbon Dioxide per mile*

Figure 2 – Annual Carbon Dioxide Emissions by Vehicle



**EV models emit 0.00 tons of Carbon Dioxide annually*

Figure 3 – MSRP Values of Study Vehicles

Vehicle	MSRP
Chevy Bolt	\$36,620
Nissan LEAF	\$29,990
Ford Explorer	\$32,620
Ford Focus	\$17,950

Figure 4 – Combined Maintenance and Fuel Costs per Year

Vehicle	\$2	\$3	\$4
Chevy Bolt	\$ 451	\$ 451	\$ 451
Nissan LEAF	\$ 451	\$ 451	\$ 451
Ford Explorer	\$ 1,905	\$ 2,487	\$ 3,068
Ford Focus	\$ 1,282	\$ 1,645	\$ 2,009

Figure 5 – Net Present Value Comparisons

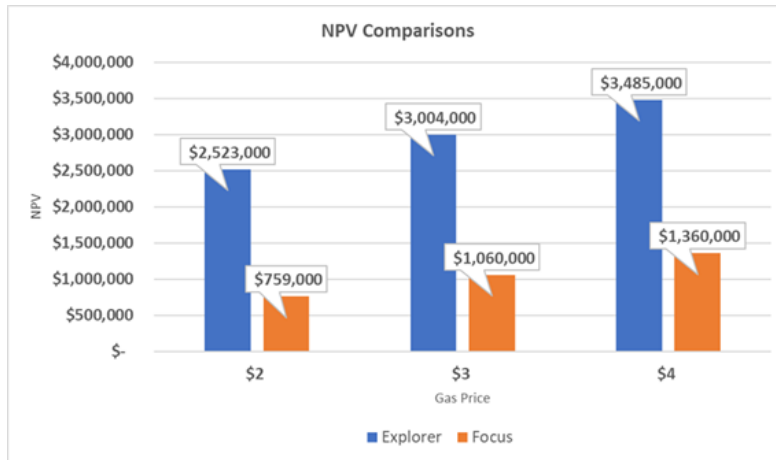


Figure 6 – Simplified aggregate net present value comparison with Ford Explorer alternative at 3% discount rate.

2018-2028			
Net Present Value - Total			
Electricity Rate	\$ 0.07		
Price of 97 EV's purchased by City of Columbus	\$ 1.8 M		
Price of 97 Ford Explorers	\$ 3.2 M		
Fuel Cost for Electric Vehicle	\$ 23 k		
Maintenance Cost for Electric Vehicle	\$ 20 k		
Gas Price	\$ 2	\$ 3	\$ 4
Fuel Cost for Gas Vehicle	\$ 113 k	\$ 170 k	\$ 226 k
Maintenance Cost for Gas Vehicle	\$ 72 k	\$ 72 k	\$ 72 k
Net Present Value	\$ 2.5 M	\$ 3 M	\$ 3.5 M

Figure 7 – Aggregate net present value of actual initial investment compared to all Ford Explorer alternative at variable discount rates.

2018*-2028			
Net Present Value - Total			
Discount rates (1%,3%, and 5%)			
1%			
Electricity Rate	\$	0.07	
Price of 97 EV's purchased by City of Columbus	\$	1.8 M	
Price of 97 Ford Explorers	\$	3.2 M	
Fuel Cost for Electric Vehicle	\$	23 k	
Maintenance Cost for Electric Vehicle	\$	20 k	
Gas Price	\$	2	\$ 3 \$ 4
Fuel Cost for Gas Vehicle	\$	113 k	\$ 170 k \$ 226 k
Maintenance Cost for Gas Vehicle	\$	72 k	\$ 72 k \$ 72 k
Net Present Value		2,659,690	3,193,924 3,728,158
3%			
Electricity Rate	\$	0.07	
Price of 97 EV's purchased by City of Columbus	\$	1.8 M	
Price of 97 Ford Explorers	\$	3.2 M	
Fuel Cost for Electric Vehicle	\$	23 k	
Maintenance Cost for Electric Vehicle	\$	20 k	
Gas Price	\$	2	\$ 3 \$ 4
Fuel Cost for Gas Vehicle	\$	113 k	\$ 170 k \$ 226 k
Maintenance Cost for Gas Vehicle	\$	72 k	\$ 72 k \$ 72 k
Net Present Value		2,508,290	2,989,671 3,470,821
5%			
Electricity Rate	\$	0.07	
Price of 97 EV's purchased by City of Columbus	\$	1.8 M	
Price of 97 Ford Explorers	\$	3.2 M	
Fuel Cost for Electric Vehicle	\$	23 k	
Maintenance Cost for Electric Vehicle	\$	20 k	
Gas Price	\$	2	\$ 3 \$ 4
Fuel Cost for Gas Vehicle	\$	113 k	\$ 170 k \$ 226 k
Maintenance Cost for Gas Vehicle	\$	72 k	\$ 72 k \$ 72 k
Net Present Value	\$	2,406,787	2,842,335 3,277,883

Figure 8 – Aggregate net present value of actual initial investment compared to all Ford Focus alternative at variable discount rates.

2018*-2028			
Net Present Value - Total			
Discount rates (1%,3%, and 5%)			
1%			
Electricity Rate	\$ 0.07		
Price of 97 EV's purchased by City of Columbus	\$ 1,875,000		
Price of 97 Ford Focus vehicles	\$ 1,741,150		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 42,007		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 124,342	\$ 159,595	\$ 194,849
Net Present Value	645,970	979,862	1,313,763
3%			
Electricity Rate	\$ 0.07		
Cost of Electric Vehicle (Fuel and Maintenance)	\$ 42,007		
Gas Price	\$ 2	\$ 3	\$ 4
Cost of Gas Vehicle (Fuel and Maintenance)	\$ 184,785	\$ 241,191	\$ 297,596
Net Present Value	1,084,075	1,565,230	2,046,376
5%			
Electricity Rate	\$ 0.07		
Cost of Electric Vehicle (Fuel and Maintenance)	\$ 42,007		
Gas Price	\$ 2	\$ 3	\$ 4
Cost of Gas Vehicle (Fuel and Maintenance)	\$ 184,785	\$ 241,191	\$ 297,596
Net Present Value	968,644	1,404,196	1,839,741

Figure 9 – Net present value of Nissan Leaf compared to Ford Explorer with variable discount rates.

2018*-2028			
Net Present Value -Leaf			
Discount rates (1%,3%, and 5%)			
1%			
Price of Nissain Leaf	\$ 29,990		
Price of Ford Explorer	\$ 32,635		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 451		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,905	\$ 2,487	\$ 3,068
Net Present Value	\$ 16,418	\$ 21,925	\$ 27,433
3%			
Price of Nissain Leaf	\$ 29,990		
Price of Ford Explorer	\$ 32,635		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 451		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,905	\$ 2,487	\$ 3,068
Net Present Value	\$ 15,049	\$ 20,010	\$ 24,970
5%			
Price of Nissain Leaf	\$ 29,990		
Price of Ford Explorer	\$ 32,635		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 451		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,905	\$ 2,487	\$ 3,068
Net Present Value	\$ 13,874	\$ 18,364	\$ 22,854

Figure 10 – Net present value of Nissan Leaf compared to Ford Focus with variable discount rates.

2018*-2028			
Net Present Value -Leaf			
Discount rates (1%,3%, and 5%)			
1%			
Price of Nissain Leaf	\$ 29,990		
Price of Ford Focus	\$ 17,950		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 451		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,282	\$ 1,645	\$ 2,009
Net Present Value	\$ (4,169)	\$ (731)	\$ 2,716
3%			
Price of Nissain Leaf	\$ 29,990		
Price of Ford Focus	\$ 17,950		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 451		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,282	\$ 1,645	\$ 2,009
Net Present Value	\$ (4,951)	\$ (1,855)	\$ 1,250
5%			
Price of Nissain Leaf	\$ 29,990		
Price of Ford Focus	\$ 17,950		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 451		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,282	\$ 1,645	\$ 2,009
Net Present Value	\$ (5,623)	\$ (2,820)	\$ (10)

Figure 11 – Net present value of Chevrolet Bolt compared to Ford Explorer with variable discount rates.

2018*-2028			
Net Present Value - Bolt			
Discount rates (1%,3%, and 5%)			
1%			
Price of Chevrolet Bolt	\$ 36,620		
Price of Ford Explorer	\$ 32,635		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 270		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,905	\$ 2,487	\$ 3,068
Net Present Value	\$ 11,498	\$ 15,204	\$ 22,513
3%			
Price of Chevrolet Bolt	\$ 36,620		
Price of Ford Explorer	\$ 32,635		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 270		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,905	\$ 2,487	\$ 3,068
Net Present Value	\$ 9,960	\$ 13,439	\$ 19,880
5%			
Price of Chevrolet Bolt	\$ 36,620		
Price of Ford Explorer	\$ 32,635		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 270		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of gas vehicle (Fuel and Maintenance)	\$ 1,905	\$ 2,487	\$ 3,068
Net Present Value	\$ 8,638	\$ 11,907	\$ 17,619

Figure 12 – Net present value of Chevrolet Bolt compared to Ford Focus with variable discount rates.

2018*-2028			
Net Present Value - Bolt			
Discount rates (1%,3%, and 5%)			
1%			
Price of Chevrolet Bolt	\$ 36,620		
Price of Ford Focus	\$ 17,950		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 270		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,282	\$ 1,645	\$ 2,009
Net Present Value	\$ (9,085)	\$ (5,647)	\$ (2,199)
3%			
Price of Chevrolet Bolt	\$ 36,620		
Price of Ford Focus	\$ 17,950		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 270		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of Gas Vehicle (Fuel and Maintenance)	\$ 1,282	\$ 1,645	\$ 2,009
Net Present Value	\$ (10,037)	\$ (6,941)	\$ (3,836)
5%			
Price of Chevrolet Bolt	\$ 36,620		
Price of Ford Focus	\$ 17,950		
Electricity Rate	\$ 0.07		
Annual Cost of Electric vehicle (Fuel and Maintenance)	\$ 270		
Gas Price	\$ 2	\$ 3	\$ 4
Annual Cost of gas vehicle (Fuel and Maintenance)	\$ 1,282	\$ 1,645	\$ 2,009
Net Present Value	\$ (10,856)	\$ (8,053)	\$ (5,242)