Madison Fagan
7/8/2017

From Burning Gasoline to Using Solar Energy

"Spending time at the pump filling up the gas tank is a task I will bet few Americans enjoy. Even if you use a full-service station and fill up from the comfort of your car, no one likes seeing dollars literally go down the drain as gas goes into the tank. We put a lot of it in our tanks each year, with American drivers on average using **656 gallons per person**. While your mileage may vary, it is important to understand how much gasoline you use and what you can do to lighten up, which is not only good for the wallet and the environment but can cut down on the number of times you need to fill up." (The Motley Fool 1)

What if you never had to stop at the gas station to get gasoline again? What if there was a way to convert your gasoline powered car, to an energy efficient automobile? As technical advances continue to prosper, something that was once unthinkable, could be realistic for the future.

LOOKING AHEAD: In 2018, Hyundai will release the car "Hyundai Tucson Fuel Cell". The car will cost $50, 875. With this car, you will never need to stop at the gas station again, due

to the automobile running fully on hydrogen. The car will admit clean H2O vapor. The car has room for five and includes front-wheel drive, it has a range of 265 miles and an estimated 49/51 MPGe. It is offered only as a lease, and you must live in certain parts of California near hydrogen-refueling stations to be eligible.(www.caranddriver.com)

Now, while this car seems picture perfect, there is obvious issues that cant be avoided. For example, needing to live in parts of California, by hydrogen-refueling stations, is not an easy thing for everyone. Also, although you wouldn't be stopping at a gas station and spending money on petroleum, you would still have to stop at a hydro-refueling station, and pay for the hydrogen for your car.

COMPARE: Now, compare this idea to a car ran completely on solar power. Take a standard car, such as your 2015 Toyota Camry LE.

Compute:

Market Price of Camry: $15,780

Cost of Conversion: $12,000

Total Cost of Car: $27,780

Cost of energy use: $0.00

COMPARE (cont.): This would mean that you would save well over $23,095 converting your car into solar, rather then buying a hydro-fueled car.

Will this Investment Ever Pay off?

656: This number represents the amount of gallons of gasoline filled into the average americans car each year.(www.fool.com)

$2.307: This number represents the national average price of gasoline per gallon updated as of 3/7/17 3:41 am eastern time.(gasprices.aaa.com)

$12,000: This number represents the cost of the conversion.

Using these two national averages, you can calculate that the average amount of money spent per person on gasoline is **$1,513.39 a year**. This means in the matter of 7 years and 339 days the investment of the solar conversion will have made a full pay-off for an average american. This also entails that if on average you keep the same car for 10 years, that in the end you would save over 3,000 dollars before getting your next car.

THINKING OF THE FUTURE:

Now, while some people may not see this investment as worth it, you need to look at the big picture. At the age of 25, you have a potential of 40 more years of driving ahead of you. Lets say within those 40 years, you owned a total of 5 cars, predicting that cars will continue to start lasting longer and longer. After you convert your first car for $12,000, you can convert your next

4 cars for 7,000, by re-using the same materials. So in the matter of 40 years, you spend an additional **$28,000** dollars on the conversions. However according to calculations you would have spent around **$60,535.60** on gasoline for your car throughout that time period. Therefore, converting your car would have saved you **$32,535.60**.