

"A Conversation with Greenable Woodbridge" ABC – Anything But Cars: Promoting walking and bicycling

Introduction:

Do you want to "Go Green"? Do you know how to "Go Green"? Today we live in an environment that is threatened by global warming every second of our day; many of us want to learn how to live healthier "Greener" and more sustainable lives. So, the question is how does Anything But Cars (ABC), walking and bicycling create a "Greenable" environment? These are just a few ways in which we can do our part in helping our environment!

In recent years, terms like "Going Green" and "Eco-Friendly" have become the household talk at the dinner table. The term "eco-friendly" has been used for so many different products and practices; its meaning is almost in danger of being lost in translation. By definition and evaluation the actual meaning of "Eco-Friendly" can be implemented in the rituals and practices of our daily lives that will lead to healthier living for us.

Greenable Woodbridge has adopted a format for communication with Township residents called "The 12 Pillars of Sustainability." Our August Pillar is Anything But Cars (ABC). Each week in August we will present options for Eco-Friendly transportation. Our recommendations will address the following:

Week One: What is Anything But Cars?

What other transportation options are there for me in?

- Week Two: Will traveling via public transportation help my environment?
- Week Three: Are Green Cars the answer?
- Week Four: Bounce Back Your Fitness In 21 Days: Benefits of Walking & Bicycling Week Three: Are Green Cars the answer?

Green Cars are becoming extremely popular because of their low "Carbon Footprints" and the consequential benefits for the environment. There are several types of environmentally friendly cars in the market right now. Hybrid cars are powered by either a rechargeable battery or combine the power of the gasoline engine. Electric cars are powered by batteries or the sun. Hydrogen cars use hydrogen as primary source for locomotion.

A vehicle is a hybrid if it utilizes more than one form of onboard energy to achieve propulsion. In practice, that means a hybrid will have a traditional internal-combustion engine and a fuel tank, as well as one or more electric motors and a battery pack.

Hybrid cars are sometimes mistakenly confused with <u>electric vehicles</u>. Hybrids are most often gasoline-burning machines that utilize their electric bits to collect and reuse energy that normally goes to waste in standard cars. Theoretically, diesel-electric hybrids would be even more fuel-efficient, but hybrid systems and diesel engines both represent extra cost. So far, installing both in the same vehicle has proven to be prohibitively expensive.

An electric car is powered by an electric motor instead of a gasoline engine. The electric motor gets energy from a controller, which regulates the amount of power—based on the driver's use of an accelerator pedal. The electric car (also known as electric vehicle or EV) uses energy stored in its rechargeable batteries, which are recharged by common household electricity.

Unlike a hybrid car—which is fueled by gasoline and uses a battery and motor to improve efficiency—an electric car is powered exclusively by electricity. Historically, EVs have not been widely adopted because of limited driving range before needing to be recharged, long recharging times, and a lack of commitment by automakers to produce and market electric cars that have all the comforts of gas-powered cars. That has changed. As battery technology improved—simultaneously increasing energy storage and reducing cost—major automakers introduced a new generation of electric cars.

Electric cars produce no tailpipe emissions, reduce our dependency on oil, and are cheaper to operate. Of course, the process of producing the electricity moves the emissions further upstream to the utility company's smokestack—but even dirty electricity used in electric cars usually reduces our collective "Carbon Footprint".

Another factor is convenience, in one trip to the gas station, you can pump 330 kilowatthours of energy into a tank commonly holding 10 or more gallons. It would take several days to get the same amount of energy from household electric current. Fortunately, it takes hours and not days to recharge an electric car, because it's much more efficient. Speaking of convenience, let's not forget two important points: charging up at home means never going to a gas station—and electric cars require almost none of the maintenance, like oil changes and emissions checks, that internal combustion cars require.

Electric motors develop their highest torque from 0 rpms—meaning fast (and silent) 0-to-60 acceleration times.

A hydrogen car is one that uses hydrogen as a fuel rather than the more conventional petrol or diesel. To confuse matters, though, there are two very different ways for a car to run on hydrogen. In the first instance, hydrogen is burnt in a conventional internal combustion engine, just as petrol and diesel normally are. The second instance, lends to a chemical reaction between hydrogen and oxygen. A fuel cell produces energy that powers an electric motor to drive the car. However, in both instances, the advantage is that there are no (CO²) emissions. Instead, the only emissions are water and heat. That all sounds great – and it is – but the trouble is that there are also plenty of issues with using hydrogen as a fuel. Nevertheless, how does one come in contact with hydrogen to fuel their vehicle? In the long run, it's not simple, uses energy and can produce (CO²) emissions – which rather defeats the purpose of trying to reduce your "Carbon Footprint" and enhance the environment. This option can also be the most expensive choice of the "Green Cars."

References:

- 1. eMedicine Health http://www.emedicinehealth.com/bicycle_safety/article_em.htm
- 2. Pedestrian and Bicycle Information Center http://www.pedbikeinfo.org
- 3. National Center for Safe Routes to School http://www.saferoutesinfo.org
- Department of Transportation
 National Highway Traffic Safety Administration (NHTSA) Eastern Region

- 5. BicycleSafe.com http://bicyclesafe.com/
- Lesson 1: Walking Safely Near Traffic www.nhtsa.gov/staticfiles/nti/pedestrian/pdf/CPSC-K1-LessonPlan.pdf
- 7. Walk This Way | Safe Kids Worldwide http://www.safekids.org/walk-way
- 8. Middlesex County Greenway http://www.traillink.com/trail/middlesex-greenway.aspx
- 9. The Walking Site http://thewalkingsite.com/beginner.html
- 10. American Heart Association http://startwalkingnow.org/
- 11. TransOptions http://www.transoptions.org/driving-cost-calculator
- 12. EcoLife http://www.ecolife.com
- 13. New Jersey Department of Environmental Protection http://www.ni.gov/dep/baqp/green.html
- 14. The Greenhouse Brochure
 http://www.apta.com/resources/reportsandpublications/Documents/greenhouse-broch-ure.pdf

YouTube Videos:

*Watch YouTube videos without comments, ads, or other distractions. (http://www.viewpure.com/)

- 1. Solar Powered Transportation Pods Coming To Secaucus https://youtu.be/67RVNx3JC-U
- 2. Simpleshow Explains the Carbon Footprint https://youtu.be/8q7 aV8eLUE
- 3. Transporting America: United Streetcar https://youtu.be/6SFbI I6nFs

- 4. Car Efficiency Tip: Drive Less https://youtu.be/uAsBZpxwW64
- 5. Alternative To Driving A Car https://youtu.be/ZzP72EY5SY8
- 6. Tomorrow's Transportation Alternative Energy Cars https://youtu.be/ WFa7b6dFkY
- 7. Copenhagen Wheel Product Development Update https://youtu.be/AtAQ6dA3WhQ
- 8. Will the Copenhagen Wheel Fit My Bicycle https://youtu.be/xcp3GeFPw A

Greenable Transportation

Stop Idling Your Car

Greenable Woodbridge secured a \$10,000 Sustainable Jersey grant through the Gardinier Environmental Fund to finance electric vehicle infrastructure and a battery-supported idle reduction system for police vehicles.





Your Car May Be

Did you know that fine particle pollution in New Jersey causes more premature deaths than homicides and car accidents?

Automobile exhaust is a primary component of fine particle pollution and is known to cause and executable a variety of heart and lung ailments including asthme, bronchitis

One single vehicle dropping off and picking up students at 1 school puts 3 paunds of pollution into the air — per month.

Children's asthma symptoms increase as a result of car exhaust, and estima is the 3rd leading cause of hospitalization among children under the age of 15. It is the most common chronic liness in children and the cause of most school absences.

Stopping vehicle "idling" means putting less exhaust in our air... and improves the air quality and respiratory health in our communities — starting with the children who breathe the ess exhaust as they come and go from school

Idling is Also illegal!

Iding for more than 3 minutes is prohibled in New Jersey If your vehicle is not in motion — with fines starting at \$100.00 per violation (NJ State Law)

What Can We Do to Help?

Idling Is "Fuelish"!

When you let you car idle, you might as well be burning dollar billa in your gas tank,



Only 10 seconds of idling uses more fuel than torning the engine on and off. Vehicles that (die 10 missiles per day waste more than 20 gallons of fuel

The best way to warm up a vehicle is to drive it

It's simple: When you're waiting in your car, turn the engine off.



- + It's good for your car.
- It's good for your wallet.
- → it's really good for your children.

Looking to Save **Commuting & Gas Costs?**

Carpooling Makes \$ense. That's why Greenable Woodbridge supports Keep Middlesex Moving (KMM) - a nonprofit organization that works to improve mobility, reduce traffic congestion, and improve air quality in Middlesex County. Keep Middlesex Moving is committed to creating transportation solutions such as carpooling, vanpooling, mass transit, compressed work week, telecommuting and much more.

Details about the KMM Carpooling Makes \$ense program can be found at: http://kmm.org/kmm/carpool/kmm_carpoolcents.php.



COMING SOON:

Electric Vehicle Car Share

Greenable Woodbridge has embarked on the first step to implement an Electric Vehicle (EV) Car Share Program. The EV program will play a significant role in shaping the Greenable Woodbridge long-term vision for electric vehicle car share market development and will serve to reduce carbon emissions, thus contributing to climate change reduction efforts. The EV program looks to offer complete street services, enhanced mobility through fuel efficient vehicles, and a comprehensive approach to reducing greenhouse gas emissions.







EARTH DAY 2017