

## **Eric Yates**

Good morning Administrator Jackson, Congressman Fattah, Ms. Nutter, Mrs. Cruz and distinguished guests. My name is Eric Yates and I'm a senior at the Automotive Academy at West Philadelphia High School. I really appreciate the opportunity to welcome you to our school this morning. I also want to extend our sincere thanks to the Philadelphia Office of the EPA and to Janice Lewis for believing in the West Philadelphia Hybrid X Team and helping us make our dreams a reality.

I'm going to tell you a little bit about the history of the Hybrid X Team. Eleven years ago, the Electric Vehicle team began as an after school program.

The first group of students built an electric powered go-kart and won the Philadelphia Science Fair. That victory inspired the team to venture into bigger projects. Over the next two years the team built an electric powered Saturn and a hybrid powered Jeep Wrangler.

Our next big victory was in 2002, when we won the national Tour de Sol out performing 40 other teams from around the country – teams like MIT, Honda and Toyota. Returning from this victory the team truly thought they could accomplish anything. The students dreamed big and created the concept of the first hybrid super car – a super fast, super efficient, super cool hybrid sports car. In 2005 the K1 Hybrid Attack made its debut winning first place in the national Tour de Sol – again beating out top universities and private race teams. The team returned in 2006 and won again.

The car has been featured in the New York and Philadelphia Auto shows, and has received tremendous media coverage including the New York Times, National Public Radio, the Discovery Channel and CBS Evening News.

Now our interest falls on the \$10 million Automotive X Prize competition to challenge ourselves to build a car that gets 100 mpg. Our unique experience and past success has positioned us as the only serious high school competitors in this international competition. Perhaps that is why Popular Mechanics Magazine has rated us in the top 10 most likely to win.

Now I'm turning it over to Azeem who will tell you more about the X Prize.

## **Azeem Hill**

Hello, my name is Azeem Hill and I am 15 years old. This is my second year as a member of the West Philly Hybrid X-Team.

The Progressive Automotive X-Prize is a competition that currently consists of 111 teams, using 14 different fuel sources, from 25 states and 11 countries. Collectively there are 136 vehicle entries including well established teams like Tesla and Aptera. We are the only team from Pennsylvania.

The overall mission of the Progressive Automotive X-Prize is to inspire a new generation of viable, super-efficient vehicles that help break our addiction to oil and stem the effects of climate change.

In order to win this competition we must build a car that achieves more than 100MPGe. This car can produce no more than 200 grams of carbon per mile. It needs to accelerate from 0-60 in less than twelve seconds. We must also be able to produce a minimum of 10,000 units annually.

Last year, the West Philly Hybrid X-Team was rated number 10 in Popular Mechanics Magazine as being one of the teams that will most likely take home the big pot of cash in the Progressive Automotive X-Prize competition. This

was determined by 6 factors: technological feasibility, fuel economy, design, performance, price, and production reality.

One year later, a few of our top ranked competitors dropped out of the competition and we are still here standing tall. Last year we didn't even have a car. All we had was determination and a powerful game plan. I think that most people see our team as a bunch of kids who just want to win a car race.

We are so much more than that. We have been to PowerShift '09 in Washington D.C. to strengthen our knowledge of what it means to be environmentally friendly. We were inspired when sat with thousands of kids from high school and college and heard Administrator Jackson challenge us to become environmental leaders.

The Conference was enlightening in many ways. We learned that it takes one hell of a fight to implement environmental friendliness. But it was gratifying to see so many young people who were ready to fight for environmental justice not just for the sake of our earth, but also for the sake of our economy.

Winning this competition is not only going to open up jobs for many Americans in the automotive industry, it will also prove that through competition comes innovation: Innovative minds, innovative ideas, and efficient desirable products.

Now, I'd like to introduce Jacques Wells who will explain the cutting edge technology we will be using in our entries.

### **Jacques Wells**

Hello. My name is Jacques Wells and I am an 11<sup>th</sup> grade member of the West Philly Hybrid X Team. As you have already heard, we are entered in the Progressive Automotive X Prize. This is a competition to create environmentally friendly cars that will revolutionize the automotive industry.

As a member of the team, I know that we have what it takes to win this \$10 million competition. One of the reasons we are so well prepared to win is our long history with cutting edge technology.

Ten years ago, we built and raced an electric Saturn, which achieved 180 MPGe. We also built a plug-in biodiesel hybrid Jeep. When we began using biodiesel and plug-in technology, virtually no one knew what they were. Now, everyone is talking about plug-ins. Biodiesel is no longer obscure - you can buy it at gas stations all over the state.

In the Automotive X Prize we will again use cutting edge technology. In this competition we will showcase lithium iron phosphate batteries and biobutanol.

We are building 2 cars. The first is our 5 passenger Ford Focus powered by electricity and biobutanol which is a second-generation biofuel that has many advantages over ethanol. It will contain a state-of-the-art lithium iron phosphate battery pack that will allow the vehicle to travel over 40 miles on electric power alone.

The second vehicle is a Factory Five GTM sports car. This fierce hybrid will be powered by the same electric motor and battery pack, but it will be coupled with a VW TDI engine which will run on Pennsylvania biodiesel.

I'd now like to call on Anita Davidson, who will tell you about our plans to bring these vehicles to market.

### **Anita Davidson**

Good morning ladies and gentlemen, my name is Anita Davidson, and once again I'd like to thank Administrator Jackson and all our other guests for joining us here today.

Philadelphia is the home of great, old traditions. Philadelphia is the home of soft pretzels, cheese steaks, liberty, and freedom, among other things. But most importantly Philadelphia is the home of innovation. Without innovation neither cheese steaks nor liberty would have been established in this great city of ours.

The West Philly Hybrid X-Team plans to continue this tradition of innovation through the production of our X-Prize Ford Focus and GTM. The EVX team realizes the dire need for more jobs, right now, in this economy, in our city. The job opportunities that the marketing, production, and selling of our vehicle will provide will help to open up new pathways to the budding green economy.

Our new line of vehicles will not only create jobs in our Philadelphia assembly plant and business office, but new green jobs will be created in the automotive maintenance field where technicians trained in hybrid and plug-in technologies will be in great demand. Growing these jobs in the new green economy is one of the keystones of our business plan.

Like Charlie in Willy Wonka and the Chocolate Factory, in April, the team won its golden ticket. This ticket granted us access to the behind-the-scenes action at both the EPA Testing Lab and Ford's Global Technology Center. We received specialty tours of the chocolate river and four-course-bubble-gum lab of the EPA and Ford. These trips helped to further develop our business plan by giving us additional information that normal day-to-day consumers are not privy to.

We spent an amazing afternoon at the EPA's National Fuel and Vehicle Emissions Lab. We saw the latest hydraulic hybrid technology, which left a number of my teammates foaming at the mouth and another number of my teammates scratching at their heads. We also learned about the EPA's Smart Way Program that encourages businesses to find the greenest methods by which transport their goods.

The staff members at the lab were generous with their time and knowledge, answering all of our questions and explaining how emissions are checked in new cars and rechecked at various times as the cars age. We learned how fuel economy is measured, although some of us still struggle with understanding how many miles per gallon we will be getting when our cars are running on pure electricity. What we learned in Ann Arbor will help us refine our X Prize vehicles to assure our victory.

In April, we also visited Dearborn, Michigan, to meet with the President and CEO of Ford Global Technologies.

We will continue our work with Drexel's LeBow College of Business. We look to forge new partnerships with companies like the Philadelphia Industrial Development Corporation and the Delaware Valley Industrial Resource Center and to learn from the research that US Navy conducts, which were introduced to us by councilman Jim Kenny.

The West Philly Hybrid X-Team is ensuring a bright, green future for Philadelphia by developing a plan that incorporates innovative manufacturing and marketing and requires the city to provide a strong education for its youth, who will build the strong work force demanded by the new green economy.

We are glad that the EPA has invested in the kinds of education that get us all closer to our goal.

I'd now like to introduce our Team Director, Simon Hauger.

**Simon Hauger**

I'm Simon Hauger and I'm the teacher who started this program 11 years ago.

When I began this after school program I was looking for ways to inspire students – to make the math and science I taught real. I never imagined we would end up here.

Actually I often wonder how students and teachers from an inner-city high school in West Philadelphia got to this point.

I never imagined we would be the first team of color to enter the National Tour de Sol – the nation's largest and most prestigious green vehicle competition.

I never imagined that we would return two years later and actually win the competition beating out top colleges like MIT and well funded private race teams.

I never imagined that we would come up with the idea to make a super cool, super fast hybrid and return to win the Tour de Sol two more times.

I never imagined that Popular Mechanics would rank us in the top 10 most likely to win X Prize, along side multi-million dollar corporations.

So how did we get here? The answer is straight forward.

Kids have incredible imagination – they want to– actually, they need to work on things that matter – important stuff. Real stuff. When students are given that opportunity and are supported by teachers and partners who care about them and believe in them – the results are amazing.

This is a collaborative effort. We need teachers like Mr. Preiss and Mr. DiLossi who believe in their students and fight each day to give them their best.

We need volunteers like Ann Cohen who dedicate their lives to making programs like this work. We need partners like Lisa Nutter and Philadelphia Academies whose sole mission is to improve educational opportunities for students.

We need friends like Councilman Kenney, Councilwoman Blackwell, Representative Roebuck who have been huge supporters of our program. We need school leaders like Principal Cruz and Dr. Ackerman who have the vision to support successful programs like this one.

We need national leadership that is going to create policy so that the green economy becomes something real – something powerful. And thank God we finally have it.

The fact that our students have achieved this level of success is truly a collaborative effort. I deeply appreciate all the support that all of you have given us to make this possible.

So when we heard that Administrator Jackson was coming to visit us the students and I started to think about one thing we could share with her that she might take away.

100 mpg cars. We know that the Administrator knows about this. Could we tell her how awesome bamboo is? We're sure she knows about bamboo. What do we want to make sure to tell her?

It's pretty simple. The future of our economy and the future of our environment are so closely connected.

My prayer – my hope is that as the green economy moves forward that my students, that the students here today, that urban students - are not left behind. Thank you.