Suspense Builds in the Automotive X Prize ‘Green Prix’

The greenest race on earth, the Progressive Insurance Automotive X PRIZE, is heating up, like Salma Hayek dancing on a waffle iron. The competition will award $10 million dollars to the teams that win a stage race for clean, production-capable vehicles that exceed 100 MPG or the energy equivalent (MPGe). Twenty-two contenders have been accepted to registered team status since the multimillion dollar competition designed to inspire a new generation of viable, super fuel-efficient vehicles was announced in March.

These registered teams, representing 5 countries, 10 states and 28 vehicles altogether, are among the first to have submitted their registration applications, a crucial step towards ensuring that they are at the starting line when the stage race portion of the competition kicks off next year. Additional entrants have until early 2009 to submit their applications. More than 100 teams have submitted Letters of Intent to compete, but final confirmation of each team’s registered team status occurs only when they sign a Master Team Agreement (MTA) form after meeting competition standards.

“We congratulate this first group of competitors on their continued commitment to developing more super fuel efficient car choices,” noted Julie Zona, Director of Team Development and Relations for the Progressive Automotive X PRIZE. “The technologies reflected in this first wave of registered teams are as diverse as the teams themselves, and we look forward to hearing more about their individual ideas in advance of the stage race competition.”

The competition will comprise two vehicle classes: Mainstream and Alternative. Mainstream vehicles will be required to carry four or more passengers, have four or more wheels, and allow for a 200-mile range. Alternative-class vehicles will be required to carry two or more passengers, have no
constraints on the number of wheels, and allow for a 100-mile range. All vehicles will need to meet requirements for performance and features to make
the cars attractive to consumers.

Two dramatic, long-distance stage races in 2009-2010 – a Qualifying Race and the Grand Prize Final Race – will kick off the competition. The cities
involved in the route are expected to be announced in early 2009, and the courses will reflect typical consumer driving patterns during numerous stages.
To win, vehicles must complete both races with the lowest overall time averaged over all scoring stages while still meeting the requirements for 100
MPGe fuel economy and low emissions of carbon dioxide and other pollutants. The $10 million prize purse will be split between the winners of the
Mainstream and Alternative classes.

In the spirit of encouraging as many different technologies as possible, the contest is open to drivetrains powered by electricity, air, hydrogen, methane,
gasoline, diesel, biodiesel, and ethanol—or any other substance that makes machines move. Moreover, X Prize organizers decided that teams would have
to account for “upstream carbon emissions” as well as those from the vehicle itself. Using Argonne National Laboratory data that quantifies the carbon
emitted while producing and consuming various fuels, the organizers built a handy spreadsheet that teams can use to figure out whether they meet the
standard.

On account of their overall affect on the national power grid, the standard will more than likely count out most cars currently on or headed for the road
like hot-rod Priuses, GM’s Volt, and Tesla Motors’ battery-powered Roadster. Nonetheless, a new wave of green motor companies has risen to the
challenge.

The Favorites: No ink or expense is being spared on the well-developed projects being put forth by companies like Aptera (pictured) and Tata Motors.
Aptera was founded in 2006 and is working on an uber-aerodynamic, three-wheeled electric two-seater with a 120-mile range. Tata Motors is India’s
largest automobile maker and builder of the reengineered air-compressed engine.

The Hail Marys: Cornell University, Western Washington University, and West Philadelphia High School are all pitted against the well-funded,
favored, neo-green Goliaths. These teams look to be the underdogs of the race but have come along way no doubt. The Cornell team now comprises of
more than 45 undergraduate/graduate students and a seven-member faculty board of directors. So far, the team with its 4-seat lead-acid PHEV Geo
Metro has attracted such sponsors as General Electric, the Triad Foundation and Popular Mechanics. In addition, Western Washington University’s
Vehicle Research Institute was recently honored for its work creating a vehicle powered by biomethane from cow manure. And West Philadelphia High
School, which is located in one of the roughest, toughest neighborhoods in the Northeast, according to Rolling Stone, clearly stands out as the potential
Cinderella story amongst this group of rising stars. And then there’s Zap, the EV upstart from Northern California that says it’s working on a three-
wheeler called the Alias that purportedly will see 100-plus mpg and a top speed of 105 mph.

The Dark Horse: All these relative newcomers to the green car scene will be facing longtime veterans like Craig Henderson, creator of the Avion. The
Avion smashed its own mpg Guinness Book world record of 103 set back in 1986. The Avion’s record now stands at 113mpg, and the self-proclaimed
“viable, sustainable company” that makes the car is confident that it has what it takes to go the distance. Having stood virtually unnoticed at the top of
the mpg standings for so long Henderson told Wired.com, “When I first heard about the X Prize, I told my friends, ‘great.’ I’ll just let them know how to
put a direct deposit through to my bank account.”

Don’t start counting the money all just yet, Mr. Henderson. There is still a race to run, and things could get a little dirty, in an intense, green sort of
way—just how we like it!

Photo illustration by Wired.