

GM Plants ‘Solar Tree’ with 10 Million Electric Vehicle Miles on Nation’s Roads

by Gerald Scott
News Dept.

December marks one year since the Chevrolet Volt first went on sale in select markets across the U.S., so it's time to take the car's temperature.

On one hand, only about 6,000 units nationally have been sold, but on the other, has any other car in modern auto history had the impact that the Volt has had?

Mid-November seemed to be the “season of the Volt.”

On the West Coast at the L.A. Auto Show, it was announced that Jay Leno had surpassed 10,000 “battery miles” in his Volt in one year of driving, and with only 88 miles coming off of engine-induced charging. Leno’s Volt still has most of the original “first tank of gas” left unused.

Elsewhere in California, it was announced that the 2012 Volt with a Low Emissions Package will qualify as a High Occupancy Vehicle (HOV) lane candidate for the state’s crowded freeways.

Closer to home, former GM Vice Chairman Robert Lutz drove his Volt to the opening of a new film about electric vehicles in Royal Oak called “Revenge of the Electric Vehicle,” which gives GM a role reversal from the earlier “Who

Killed the Electric Vehicle?” documentary film.

And in Warren, GM debuted something called the Solar Tree at its company car parking lot off of 11 Mile Road, about one mile south of the GM Tech Center proper.

There, GM and city officials cut the ribbon on a solar tree, which is a gargantuan solar energy collector, shaped somewhat like the “Tree of Life” in Disney’s “The Lion King” movie and it is able to recharge six plug-in vehicles at a time.

Tony Posawatz, Chevrolet Volt Vehicle Line director, hosted the event in the parking lot of GM’s company car lot at 11 Mile Road and George Merrelli Drive in Warren.

“We’re here at General Motors’ Company Vehicle Operations and we’re very excited that we as General Motors are taking a leadership position in some of these new, emerging, sustainable technologies,” Posawatz said.

“This large structure standing behind me should not be confused with some of the initiatives you’ve read about in the past . . . this canopy is a little bit different, it’s the next phase in our green charging strategy at Chevrolet and General Motors.

“We are now planting and

growing ‘solar trees.’”

Posawatz said that GM now has more than 500 charging stations across its facilities alone to recharge plug-in cars like the Volt, all for workplace charging.

“By early next year, we anticipate we’ll have about 200 Green Zones or Chevrolet dealerships that have charging canopies under construction or in place,” Posawatz said.

“We have many other solar initiatives here at General Motors, including – if you’ve been to the Detroit-Hamtramck Assembly Plant – home of the Chevrolet Volt, you’ll notice that we also have charging canopies there plus solar charging to power the facility.”

The big GM Solar Tree planted in Warren offers some unique energy technology and is something that was engineered and assembled in the U.S. en route to its permanent location. Officials said the next similar Solar Tree will be installed later at the GM Proving Ground in Milford.

What’s unique is that it is not only recharging six vehicles at a time, but it’s using pure solar energy to do that.

“Now this particular Solar Tree is designed not only to provide protection from the



PHOTO: GERALD SCOTT

Chevrolet Volt Vehicle Line Director Tony Posawatz gave the keynote talk at the ribbon-cutting ceremony for the new GM Solar Tree recharging station in Warren.

elements for the cars when charging the vehicles, but it actually moves and adjusts with the sun to ensure that we’re capturing the optimal amount of solar rays at any given point in time,” Posawatz said.

“Now is that very cool technology, or is it?”

All of this fuss drew the likes of Warren Mayor Jim Fouts, industrialist Roger Penske and GM Vice President of Human Resources Cindy Brinkley to central Warren on a blustery fall day to cele-

brate the installation of the Solar Tree.

Remember Jay Leno and his 10,000 battery miles in about one year of driving his personal Chevy Volt?

But there’s more to the plug-in vehicle equation than just high celebrity numbers – GM points out that those 6,000 Volts nationwide have put on a remarkable number of “battery miles” overall.

Said Posawatz, “This is a story about technology and teamwork – the technology that exists in the Chevrolet

Volt, the award-winning product that has now achieved a very interesting milestone.

“We’ve just passed 10 million battery-powered miles from the grid in our retail fleet.”

Which means 10 million road miles traveled without the aid of petroleum from just 6,000 cars. Call it the proverbial Solar Tree of renewed life for the wider auto industry.

The electrified vehicle is here and it’s beginning to have a tangible impact on society.



PHOTO: GERALD SCOTT

Envision Solar CEO Desmond Wheatley, right, takes a cell phone call following the ribbon-cutting of the GM Solar Tree in Warren last month. At left is Chevrolet Volt Vehicle Line Director Tony Posawatz. The GM Solar Tree was designed and assembled in the U.S. by San Diego-based Envision Solar.

Former Ford Executive Is Named To XL Hybrids Board of Directors

BOSTON – XL Hybrids, Inc., a company that provides hybrid vehicle technology for commercial fleets, last month announced that Richard Canny has joined its board of directors.

Canny is president of Electric Transport Advisors and was formerly the director of global strategic planning at Ford Motor Company and CEO of electric vehicle producer THINK Global.

He will increase XL Hybrids’ connections within the automotive industry and help prepare the company for rapid growth, say XL Hybrids officials.

Canny joins XL Hybrids with 28 years of automotive experience, 25 of which were with Ford, where he held other senior operating leadership positions, including president and CEO of Ford South America.

He has experience managing 9,900 employees and seven manufacturing plants, as well as developing the Fiesta sedan 18 months ahead of schedule.

While at THINK Global, Canny raised \$92 million during challenging economic times and grew the company’s revenue from zero to \$60 million.

He also restructured the company’s operations and led strategic alliances with automotive original equipment manufacturers (OEMs) and smart grid consortia.

Hailing from South Australia, Canny graduated from the Royal Melbourne Institute of Technology with a Master of Business Administration (MBA).

“While there are various electric drive solutions available or coming to market in the near future, fleet operators have few choices in the hybrid or electric vehicle segments,” said Canny.

“XL Hybrids has a unique and proprietary technology system that offers a hybrid drive solution to fleets at a fraction of the installed cost

of other systems – and achieves a payback within three to four years.

“The company is well placed to grow quickly and I am happy to be joining the team.”

XL Hybrids’ President Tod Hynes said, “Richard’s high-level OEM experience combined with his real-world knowledge of the alternative vehicle industry provides tremendous value to XL Hybrids.

“Few people have experience leading the introduction of an alternative vehicle into the market, and we are glad to have Richard on our team.

“He recognizes the significant opportunity XL Hybrids has with its proprietary technology, which has been designed specifically for commercial fleet applications.”

Canny joins other board members, including Bill Aulet, managing director, MIT Entrepreneurship Center, and Tod Hynes, president and founder, XL Hybrids.

XL Hybrids also has a technical advisory board that includes Dr. Edward Lovelace, chief technology officer and executive vice president of engineering, Free Flow Power Corp., and Ed Tekeian, former vice president of engineering for three Boston technology startups.

XL Hybrids designs, manufactures and installs hybrid electric powertrains for commercial vans and trucks.

The company’s patent-pending hybrid electric powertrain can be installed on existing vehicles or as an upfit on new ones.

The hybrid powertrain – working in parallel with the original equipment manufacturer’s engine and transmission – stores energy wasted in braking and reapplies it during acceleration. The result is a vehicle that uses up to 20 percent less fuel and emits up to 20 percent less carbon dioxide on urban routes.

GM’s New ‘Tracking Solar Tree’ Engineered in U.S.

by Gerald Scott
News Dept.

San Diego-based green technology firm Envision Solar got a very big feather in its cap last month with the planting of a new Solar Tree at GM’s Company Vehicle Operations off of 11 Mile Road in Warren.

Officially called the Tracking Solar Tree, the giant edifice can feed up to six plug-in vehicles, such as the Chevrolet Volt at a time.

Better yet, the unit actually tracks the sun as it passes through the sky to better feed solar energy into the car batteries. And best of all, the Tracking Solar Tree was designed, engineered and built right here in the U.S.

At last – green jobs that everyone is talking about but nobody can seem to find.

Envision Solar CEO Desmond Wheatley was on hand at the Solar Tree ribbon-cutting ceremony last month and he drew high praise from GM officials.

“I’d be remiss if I didn’t recognize Envision Solar for their work on this project. They are the company behind the tree. I was just envisioning Christmas ornaments on this tree some day,” said Tony Posawatz, Chevrolet Volt Vehicle Line director, at the kickoff.

“Desmond Wheatley and

his team made sure that this tree is designed to fit in with GM’s sustainability scope and plan, and then saw through the execution from beginning to end.

“With this Solar Tree in place, GM becomes the first automaker to install one of these trees on their property to charge our own vehicles.”

As Vehicle Line director of the Volt, Posawatz knows a thing or two about modern auto-electric car technology and he seemed to be as impressed with the Tracking Solar Tree as he is with the Volt itself.

“It’s a pretty amazing piece of sustainable technology. One of these structures can produce 30,000 kW hours of energy a year. This canopy can charge six plug-in vehicles, like the Chevy Volt, on any given day,” Posawatz added.

“One of the neat features of the tree is that it doesn’t impede traffic – very nice, progressive design that is situated with a pole, and really allows vehicles to park easily and maneuver around the structure so it becomes less of an obstacle and really becomes part of the landscape, if you will.”

The Warren site is the first on GM property although another one is scheduled to be built soon by Envision Solar

at the GM Proving Ground in Milford.

“We are constantly looking for places where we can add a renewable focus,” said Rob Threlkeld, GM global manager of renewable energy.

“This solar tree is an ideal addition because not only does it provide a space to charge our electric vehicles, but it’s another step in our journey toward cleaner energy use.”

The Tracking Solar Tree, built in America by Envision Solar, features a hybrid multi-axis tracking design that enables the entire canopy to track the sun, increasing clean renewable energy production by about 25 percent. This structure will provide enough solar energy to charge six electric vehicles per day.

“General Motors’ commitment to the environment is clear,” said Wheatley. “Our Tracking Solar Trees are a beautiful and visible embodiment of that commitment. We look forward to deploying many more in the months to come.”

This array supports GM’s position as a leading user of renewable energy in manufacturing, deriving energy for manufacturing operations from solar, hydro, and landfill gas resources. In the United States, 1.4 percent of GM energy consumption comes

from renewable resources.

Added Wheatley, “100 years ago, the average American faced considerable challenges just getting around: the yolk, saddle, buggy . . . considerable difficulties in their day-to-day travel.

“General Motors became one of the most important companies in history, liberating Americans from the difficulties they faced through their daily travel.

“Millions became free to roam the country, as they pleased, conveyed by the latest technology of the time.

“Now, in this new century, Americans know – perhaps all peoples in the world face new challenges which are equally grueling: increasing costs of gasoline, the undeniable impact of pollution and the very imperfect geographical distribution of oil, are all problems which have separately come out of hiding from time to time over the last 40 years.

“But which today, together no longer hide, and in fact are foremost in the minds of many.

“Once again, General Motors offers deliverance. Once again, through the latest technology of the time . . .

“These vehicles will drive down the road on pure, glorious sunlight, delivered to us as it always has been, by our nearest neighboring star.”

Documentaries Tell of Death, Rebirth of Electric Cars

From Staff Reports

Has the auto world effectively turned on its ear these days?

Perhaps so, if you consider the back-to-back documentaries, “Who Killed the Electric Car?” in 2006, followed by this year’s “Revenge of the Electric Car.”

In the first film, directed by Chris Waite, GM was effectively the “villain” as the documentary movie studied how and why the GM EV1 died the death that it did during its short market run from 1996 to 2002.

But now, last month, Chevrolet actually hosted the metro Detroit debut of “Revenge,” which purports to tell the story of latter-day efforts by various automakers, including GM, to give new life to the electric vehicle.

Robert Lutz, retired vice chairman of General Motors, even showed up with his wife Denise in his Chevrolet Volt to the film debut at the Main Theatre in Royal Oak.

The documentary, executive-produced by Stefano Durdic, and produced by P.G. Morgan and Jessie Deeter, had its world premiere at the 2011 Tribeca Film Festival on Earth Day, April 22, 2011.

The theatrical release to the public took place on Oct. 21, 2011.

“Revenge” follows four entrepreneurs from 2007

through the end of 2010 as they fight to bring the electric car back to the world market in the midst of a global recession.

The protagonists are:

- Bob Lutz from General Motors;
- Elon Musk from the American start-up Tesla Motors;
- Carlos Ghosn from Nissan;
- Greg Abbott, an independent electric car converter from California.

Whereas the 2006 film, “Who Killed the Electric Car?” ended with the destruction of nearly 5,000 electric cars from California’s clean air program – notably the GM EV1 – the new film features the birth of a new generation of electric cars including the Chevrolet Volt, the Nissan Leaf and the Tesla Roadster.

The public relations battle surrounding hybrids, EVs and plug-in electrics is not insignificant because so many different constituents are pushing competing agendas.

GM took it on the chin in the 2006 documentary, but in this one, the film follows Lutz as Chevy Volt evangelist, especially during a time period when GM declared corporate bankruptcy and the future of all of its vehicle programs was in doubt.

The fact that GM was able to bring the Volt to market in just 29 months remains a remarkable technical achieve-



Movie Director Chris Paine, left, talks with journalists Michelle Krebs and Ray Wert under the marquee of the Main movie theater showing “Revenge of the Electric Car” in its metro Detroit debut.

ment.

The Volt debuted as a concept in January, 2007, at that year’s Detroit auto show and by December, 2010, it was launched in select markets in the U.S.

So the Volt got grouped into Chris Paine’s latest documentary alongside the Nissan Leaf and the Tesla sports car.

Perhaps an A-to-Z documentary film surrounding just the Volt and how it was

brought to market is a story that is still to be told. For now, “Revenge” will have to do.

Even with two documentaries in hand about modern EV history, auto analysts have argued that the niche market can be confusing because of so many different labels including EVs, hybrids, plug-in hybrid electric vehicles (PHEV) and similar designations, such that more public education is called for.