

Warren Approves GM Tech Center Tax Abatement Request

The Warren City Council unanimously approved a request from General Motors on April 21 for a 50 percent reduction of the new property tax revenue that would be generated for construction at

the Tech Center in Warren.

Word of the project reached the public earlier in April after Warren mayor Jim Fouts promoted a major industrial project in the city in a press release an-

nouncing his state of the city address.

This announcement alerted the media to General Motors' plans for the Tech Center. GM spokesman Daniel Flores

said at the time that GM was looking at all its facilities and did have plans for the Tech Center, but would not make any comments until all the plans were approved and would be

ready to be put into place.

On April 21, the Warren City Council met in a special session and approved granting GM its re-

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Tech Center News™

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Cascada Endures Rigorous Water Shower Test - Passes

How does Buick ensure the 2016 Cascada convertible will stay dry when April showers come calling? By making it rain on the assembly line, assuring cloudbursts will be no match for Cascada when it hits dealerships in early 2016.

"Convertibles are best enjoyed when it's warm and sunny, but Cascada has been designed and engineered to be used year-round, regardless of the weather," said John Dolch, program quality manager for Cascada. "Not only is Cascada's top engineered to be weatherproof in extreme conditions, but each and every Cascada built will also be put through a rigorous water test."

Specialized water test booths, located at the end of Cascada's assembly line, will allow freshly built cars to roll off the line and

into testing. Each booth has no fewer than 124 individual nozzles, which will quickly immerse the Cascada in a miniature rain-storm for 10 minutes.

Each nozzle emits 1.9 gallons of water every minute. Cascada's test is designed to produce nearly the equivalent of 1.23 inches of rain in a minute, which matches a world record set in Unionville, Md. in 1956.

Additionally, two Cascadas will be randomly selected daily to undergo another water test, known as the "deluge." While this test is designed to last only eight minutes, each nozzle blasts roughly three gallons of water each minute.

Much like actual rain clouds, Cascada's water testing booths are also part of a water cycle. While nearly 132,000 gallons of water - or nearly 5,500 full bath-



Each 2016 Buick Cascada undergoes water testing before being sold.

tubs - will be used daily, only 1.5 percent of that volume is lost to evaporation. The other 98.5 percent of the water used will be collected, filtered and recycled for use in later tests.

These tests may seem extreme, but they're especially im-

portant given April showers are more than an old proverb. As winter gives way to spring, rain showers are bound to splash cities across the U.S. with more than a little precipitation.

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Donated Cadillac CT6 Raises \$200K For Karmanos

The first new retail production 2016 Cadillac CT6 sold for \$200,000 April 17 at the 13th Annual Barrett-Jackson Palm Beach Auction in Palm Beach, Fla.

All proceeds from the sale to dealer David Flynn from Columbiana, Ohio, will benefit the Barbara Ann Karmanos Cancer Institute, said GM spokeswoman Laura Toole.

The auction extends General Motors' long-standing support of the Karmanos Cancer Institute, one of 41 National Cancer Institute-designated comprehensive cancer centers in the country.

All proceeds from the CT6 auction will support the expansion of Karmanos' Intensive Care Unit and develop a 24-hour Acute Care Clinic to support the continuum of specialized care for

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Michael Tschirhart, Kristin Kolodge, Tim Nixon and Brian Radloff.

Auto Panel Discusses OEMs' Technology Needs, Concerns

by Jim Stickford

The question of just what kinds of technology automakers should invest in was the topic of discussion at an Automotive Press Association event held at the Detroit Athletic Club on April 22.

J.D. Power executive director of Driver Integration & HMI Research Kristin Kolodge presented J.D. Power's 2015 U.S. Technology Choice study. This was followed by a panel discussion on OEM technology needs and concerns.

Kolodge began by saying that J.D. Power recognized the influence of consumer electronics on people's automotive choices.

"People want to be connected," Kolodge said. "But there are a lot of choices, so the question is what do customers want?"

And, Kolodge said, one element in the whole process that is uncontested is the rate of change. It's not uncommon for

people to say their latest software is outdated when it's just a year old.

"The purpose of this study is to provide objective measures of what people want," Kolodge said. "We measured both preferences and perceived values. The benefit of this study is that it provides automakers with clear road maps for research and development so they can decide what to work on, and perhaps just as importantly, what not to work on."

Technologies that reduce the overall burden of driving and enhance the safety of the vehicle and its occupants receive the most consumer attention, Kolodge said. Among the technologies consumers express most interest in having in their next vehicle are blind spot detection and prevention systems, night vision and enhanced collision mitigation systems.

These findings demonstrate

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Delphi Works to Improve Mileage, Safety

by Jim Stickford

For automotive supplier Delphi, there are a couple of ways the company can help OEMs meet their goals of better mileage standards and lower CO2 emissions, while making cars safer.

Dr. Andrew Brown, Jr., vice president and chief technologist for Delphi's Innovation & Technology Office, speaking at the 2015 Society of Automotive Engineers (SAE) World Congress on April 21, said one way Delphi can help make cars safer is through the use of cameras.

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Delphi's Andrew Brown before display touting its newest technology.

Magna Frames Lighter, but Still Strong

by Jim Stickford

The topic of lightweighting was one of the major themes at this year's Society of Automotive Engineers (SAE) World Congress in Detroit April 21 and 22 was lightweighting.

"We even wrote and presented a paper on the subject at this year's congress," said John Zalewski, Global Product manager - Driveline Systems for Magna. "And one way Magna is able to reduce the weight of vehicles is through unibody construction that has the body made of different materials used in different places, depending on the requirements. So in high stress parts of the body, we use lightweight, but strong steel. In less stressed areas, we can use aluminum, which is a third the weight of steel, but can be almost as strong."

But, said Zalewski, the take-away from all of this is that

Magna was able to make a frame that is both light and strong. This helps OEMs achieve two of their most important goals - improve mileage and reduce CO2 emissions.

"But that's only half the story," Zalewski said. "The other half is how Magna can improve mileage through improvements to the

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John Zalewski and Rachel Delaurier show off Magna's new frame.

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Mopar Offers Teen Driving Classes May 2-3

Ask any parent about which of their children's rights of passage worry them, it's likely that getting his or her driver's license and being a teen motorist is high on the list.

Well Mopar and the FCA Foundation, in collaboration with NHRA Motorsports Museum and B.R.A.K.E.S. (Be Responsible And Keep Everyone Safe), are doing something to ease parents' minds.

They are offering an advanced driving program called Mopar Road Ready for teen drivers. It will be held in the Detroit area Saturday and Sunday, May 2-3, said Fiat Chrysler spokesman Ariel Gavilan.

The program is designed to teach safe and defensive driving techniques and is available to young drivers between the ages of 15-19 with a learner's or driver's license and at least 30 hours of driving experience, Gavilan said. The cost is \$99.

The program will be held at Mopar's world headquarters, located at Mopar Center Line Complex, 26000 Lawrence Avenue, Center Line, Gavilan said.

This will provide the media and the public with an inside view of the Mopar Road Ready program, Gavilan said. It is designed to teach teens defensive driving techniques on a closed course in a controlled environment, including a companion experience for a parent or adult guardian who will actively participate.

The goal is to prevent injuries and save lives by training and educating teenage drivers and their parents about the importance of safe and responsible driving.

Through this collaborative effort, the three Mopar Road Ready events (Pomona, Calif., Gainesville, Fla., Center Line, Mich.) hope to impact more than 1,000 young drivers and their parents, Gavilan said. To register, email register@putonthebrakes.org.

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"The Message of the Day Is Partnership" – General Bingham

by Jim Stickford

One thing the defense industry has in common with the auto industry is that it is cyclical.

"I've been in the defense industry for 40 years," said Jim Rumar, who serves on the board of directors of the Michigan chapter of the National Defense Industrial Association (NDIA). "I started out with Chrysler Defense before it was sold to General Dynamics. And one thing I saw, and I believe still holds true today, is that when the defense industry was enjoying good times, the auto industry was experiencing troubles. And when the auto industry was flush, the defense industry was in a down cycle."

This observation is important, Rumar said, because southeast Michigan is not only home to the U.S. auto industry, it has a vibrant presence in the military industrial complex as well.

And what this cycle means for the area, Rumar said, is that when the auto industry is up, engineers and manufacturers leave their old jobs in the military industry to move to the car side of things. And when cars are down, they go back to the military side of things.

"What I want to emphasize is that companies can weather these changes better by being prepared for them," Rumar said. "So small and medium-sized companies that make parts for the military should be prepared to deal with this reality. It's tough."

Which is why Rumar works with organizations like the NDIA and Michigan Business Connect. By helping people develop networks, businesses in Michigan can better make the transition between public and private work.

The Michigan chapter of the NDIA held its annual Defense Expo on April 21 and 22 at Macomb Community College's Sports Expo Center.

This expo, said NDIA spokesman Paul Curtis, allows local defense contractors to show everyone at TACOM and TARDEC just what they can do.

"Companies can show off their prototypes and TACOM and TARDEC people can talk with them," Curtis said. "This is important because TACOM and TARDEC are large organizations with many people who perform many different functions. Having all the contractors in one place at one time gives the people who work at these different functions the chance to answer questions."

Major General Gwen Bingham, who is in charge of TACOM in

Warren, also attended the NDIA show.

"The message of the day is partnership," Bingham said. "This type of forum brings us – the Army and contractors – together. It's a powerful to be able to do what I like to call the three Cs – communicate, coordinate and collaborate at an event like this and build on relationships."

Bingham said that she is the senior commander at TACOM in Warren as well as five other locations.

"Being that spread out, there's no way we could do everything inside our gates without all the help we get from our contractors outside the gates," Bingham said. "From where I sit, that's a great story."

Right now, given the current situation – the U.S. is in the process of drawing down from two wars – contractors that can help the Army sustain its forces around the world. That's the challenge, but she said that effort could be in danger if Congress

has another sequestration in 2016.

"We have a saying 'we never want to see one of our soldiers in a fair fight,'" Bingham said. "We

make sure that never happens by making sure our soldiers get every piece of equipment they need. A sequestration could interrupt that."



TACOM's commanding general Gwen Bingham at the NDIA show.

Macomb Letter Carriers Hold Food Drive

The 23rd annual National Association of Letter Carriers' and U.S. Postal Service Food Drive is coming to Macomb County mailboxes on Saturday, May 9.

Letter carriers will collect non-perishable food items placed by mailboxes on that day. A portion of the food collected in Macomb County is distributed to those in need through the Macomb Food Program's network of 55 pantries, said Macomb spokes-

woman Julie Kavanagh.

As their largest food drive, this is a critical event for the Macomb Food Program. Donations collected on this day provide emergency food supplies for thousands of hungry families and individuals in Macomb County. This year is extremely important because requests for emergency food in the county have continued to increase, Kavanagh said.

Last year this event brought in

over 300,000 pounds of food, and more than 140,000 Macomb County residents were fed.

"We encourage everyone to support the letter carriers in their efforts to help feed the hungry," said Linda Azar, Macomb Food Program coordinator. "Many of our donations come in during the Thanksgiving and Christmas holiday seasons, and by spring, our shelves are starting to be depleted."

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Debra and Bob Ferguson

Auctioned CT6 Earns \$200K for Karmanos

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Karmanos patients, said Karmanos Cancer Institute spokeswoman Patricia Ellis.

GM senior vice president of Global Public Policy Bob Ferguson and his wife, Debra, chaired the annual dinner on April 25, at the GM Design Dome in Warren. This is the fifth consecutive year that a member of GM senior leadership has chaired the event. Toole said.

"General Motors has a long history of giving back to the communities in which we live and work," said Ferguson. "We are thrilled to continue that tradition by donating our time, funds and assets to support the Karmanos Cancer Institute's world renowned patient care and research."

Earlier this year, the GM Foundation donated \$500,000 to directly support cancer research at Karmanos. To recognize the combined philanthropic contributions of GM and the GM Foundation over the years, the Karmanos Cancer Institute named one of its laboratory floors the GM Foundation Cancer Research Floor, Ellis said.

"We are extremely grateful for our long-standing partnership with GM and the GM Foundation whose philanthropic contributions continue to support our mission to do all we can to end cancer," said Gerold Bepler, M.D., Ph.D., president and CEO, Barbara Ann Karmanos Cancer Institute. "GM is constantly perfecting and advancing its vehicle engineering, as shown in the exciting Cadillac CT6. So too is our team of expert oncologists and researchers relentless in their commitment to advance discoveries that can lead to new treatments for those battling cancer."

"Together, our two Detroit-based institutions' innovations are improving lives for the better, right here in our hometown and across the globe."

The Barbara Ann Karmanos Cancer Institute is located in mid-town Detroit, and is a subsidiary of McLaren Health Care, is one of 41 National Cancer Institute-designated comprehensive cancer centers in the United States, Ellis said.

Through the commitment of 1,000 staff, including nearly 300 physicians and researchers on faculty at the Wayne State University School of Medicine, and supported by thousands of

volunteer and financial donors, Karmanos strives to prevent, detect and eradicate all forms of cancer, Ellis said. Its long-term partnership with the WSU School of Medicine enhances the collaboration of critical research and academics related to cancer care. Gerold Bepler, M.D., Ph.D., is the Institute's president and chief executive officer.

For more information call 1-800-KARMANOS or go to www.karmanos.org.

Cascada Passes Water Test

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"Typically, April sees weather patterns bring in more moisture from the Gulf, especially in the eastern half of the United States," said Jim Piro and Allan Reppert, AccuWeather climatologist supervisor and meteorologist, respectively.

"Rainfall for the spring looks to be wet along much of the East Coast, from New York south into northern Florida, and stretching along the Gulf Coast into eastern Texas."

Some spring showers may take drivers by surprise on an otherwise sunny day, but Cascada engineers came prepared, said Dolch, so that they don't get caught out in the rain.

The vehicle's power-folding top is able to be fully deployed in as little as 17 seconds, and functions at speeds up to 31 mph, Dolch said. So staying dry once showers begin is no problem for Cascada drivers.

Beginning in early 2016 when the vehicle goes on sale, Cascada owners in arid corners of the U.S. may not have to worry about facing those showers, but they will still appreciate all the work Buick engineers these tests, Dolch said.

"Chances are good you'll still clean the car with a pressure washer, or run it through an automated car wash," Dolch said. "The same watertight concerns will still apply, even under clear blue skies."

Warren Council Says Yes to Tech Center Tax Abatement

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quest for a 12-year, 50-percent abatement on up to \$419.4 million in investment and construction at the Tech Center.

The Warren City Council received a letter from GM stating that if the project went forward, about 2,600 new jobs would be created and about 3,800 current jobs at the Tech Center would be retained.

Flores said that the project is still tentative, but now that the city council has approved the abatement, it will be up to senior GM leadership as to decide whether the company will go forward with the construction project.

Flores noted that should management approve the project, GM would then work with Warren to get the appropriate building permits as well as any potential variances that might be needed to complete the project.

"This is just the first step in a very long process that, if ap-

proved, will take years to complete," Flores said. "Any plans for construction still have to be drawn up. There's still a lot of work that has to be done before construction could begin."

Flores said that one reason why General Motors is considering renovations at the Tech Center is to bring the campus and all of its buildings well into the 21st century.

"When the Tech Center first opened up in the mid-1950s, it was a state-of-the-art facility that really caught the attention of people around the world," Flores said. "But that was about 60 years ago and a lot has happened since then. Right now GM is competing with a lot of companies for engineering talent."

"By making improvements to the campus, really bringing it up to date, we can make the Tech Center more user friendly and attractive for our current employees and use it as a recruiting tool for potential future employees," Flores said.

Join Fight Against Arthritis

Help find a cure for arthritis by participating in the 2015 Detroit Walk to Cure Arthritis on Saturday, May 9, starting at 8 a.m., at the Detroit Zoo in Royal Oak. Presented locally by Beaumont, Walk to Cure Arthritis is the Arthritis Foundation's fun and non-competitive three-mile walking event that supports programs, research and advocacy initiatives to help people today while finding a cure for tomorrow. Registration is free and includes all-day admission to the zoo. Donations are encouraged.

People of all ages and origins get arthritis including children, said foundation spokesman Chris Cahill. It causes painful and progressive deterioration of the

body's joints – bones, ligaments, cartilage and tendons. Arthritis is the leading cause of disability in the United States. In Michigan alone, 2.3 million adults and 10,300 children have arthritis. The cause is unknown and there is no cure.

The 2015 Detroit Walk to Cure Arthritis will honor Emily Maiorana (15-years-old) from Troy and Bonnie Quinn (73-years-old) from Clarkston. Emily and Bonnie have arthritis.

Register online at www.WalkToCureArthritis.org or by calling 855-529-2728. Donations received from the walk will support Arthritis Foundation programs and services, including the Foundation's advocacy initiatives.

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Finance Exec Changes at GM

General Motors has named Dhivya Suryadevara GM vice president, Finance and Treasurer, effective July 1, replacing Niharika Taskar Ramdev, who has been named chief financial officer for GM International. Suryadevara will retain her current responsibilities as CEO and chief investment officer of GM Asset Management.

"Dhivya's experience in leading our asset management team will serve her well in this important role for the company," said Chuck Stevens, GM executive vice president and chief financial officer. "I'm confident that she will build on the great work the team has accomplished under Niharika's leadership. Niharika has done an excellent job over the past year as we improved our investment grade ratings and introduced a comprehensive capital allocation framework."

Suryadevara will direct GM's global treasury operations, including capital planning, capital market activities, worldwide banking and participate in business development, risk management and investor relations. Taskar Ramdev will lead the finance team for GM International, GM's operating segment which generates \$14 billion in revenue and comprises nearly 100 markets outside of China, including India, Africa and the Middle East.

Suryadevara was named chief investment officer of GM Asset Management in July 2013, with responsibility for approximately \$80 billion in assets across GM defined benefit plans. She was previously managing director of investment strategy and fixed income for GM Asset Management, where she was responsible for investment strategy and asset allocation



Dhivya Suryadevara

for GM's pension plans. She also led the plan's fixed income and re-risking efforts including in-plan initiatives and lump sum and annuitization transactions. Suryadevara began her GM career in 2004 in treasury.

Taskar Ramdev was named vice president, Finance and Treasurer in April 2014, and was



Niharika Taskar Ramdev

previously chief financial officer for GM's Global Purchasing and Supply Chain operation, a position she held since August 2011. She has held several leadership roles in GM, including assistant treasurer for GM and regional treasurer for GM International Operations. Taskar Ramdev joined GM in 1996.

Fiat Chrysler Recalls Vehicles For Transmission

DETROIT (AP) - Fiat Chrysler is recalling 58,833 older vehicles with manual transmissions.

The recall covers 2006 Jeep Liberty and Wrangler SUVs and Dodge Viper cars produced between Feb. 15, 2005, and Sept. 14, 2006. Of those, 43,874 were sold in the U.S. The rest were sold in Canada, Mexico and overseas.

FCA says a switch wire can break and cause the vehicles not to start. The vehicles may also move unintentionally if drivers don't follow the company's recommended procedures for starting the car. The company says it is unaware of any injuries or accidents related to the defect.

Customers will be notified and dealers will repair the vehicles for free.

Auto Panel Discusses OEMs' Technology Needs, Concerns

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growing customer acceptance toward the concept of the vehicle taking over critical functions such as braking and steering, which are the foundational building blocks leading to the possibility of fully-autonomous driving, Kolodge said.

The only non-collision protection technologies to crack the top five are camera rearview mirror, which falls into the driving assistance category, and self-healing paint, a comfort and convenience category.

The study, Kolodge said, used advanced statistical methodologies to measure preference for and perceived value of future and emerging technologies. A total of 59 advanced vehicle features were examined across six major categories - entertainment and connectivity, comfort and convenience, collision protection, driving assistance, navigation, and energy efficiency.

"There is tremendous interest in collision protection technologies across all generations, which creates opportunities across the market," Kolodge said. "In contrast, there is very little interest in energy efficiency technologies such as active shutter grille vents and solar glass roofs. Owners aren't enthusiastic about having these technologies in their next vehicles because of other efforts automakers are taking to improve fuel economy, as well as relatively low fuel prices at the present time."

Kolodge said that one thing the study learned was that Gen Yers are willing to spend the most for technology.

"Across all generations, price is the most important consideration for technology accounting for 25.2 percent of importance," Kolodge said. "Gen Y is the least sensitive to technology price and shows a greater willingness to

spend on new technologies than the other generations. Gen Y consumers now account for 27.7 percent of new-vehicle sales thus far in 2015 - second only to Boomers at 37.1 percent. They are willing to spend an average of \$3,703 on technology for their next vehicle. Gen X is willing to spend \$3,007, while Boomers show the greatest price sensitivity, and Pre-Boomer are willing to spend only \$2,415 and \$2,067 respectively."

Kolodge then joined a panel where she and three other industry experts discussed technology and its effect on the auto industry.

Michael Tschirhart, development manager - Human Factor for Visteon, said that one thing companies should avoid is focusing on technology for technology's sake.

"Consumers want real value for the new technology being offered," Tschirhart said. "As time goes on both OEMs and consumers can learn about technology and what's really important to drivers."

Brian Radloff, director of Automotive Strategy Accounts for Nuvance, said one thing he's noticed is that a lot of young people want their cars to perform well as cars, and not smart phones.

"Once people get the performance they want from their cars, then maybe they get interested in the tech side of things," Radloff said. "This doesn't mean they don't want tech, but at the end of the day, they first look at quality, reliability and safety of a vehicle."

Tim Nixon, Global GCCX director Engineering and Development for GM, said that what he and his colleagues have found is that things like quality and performance are taken for granted. That makes it more difficult to differentiate vehicles, so technology becomes important.



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2015 Chevrolet Spark EV

Spark EV Sees Lower MSRP

It's a good idea when one thinks about it. Being green shouldn't mean having to spend more money.

And so Chevrolet has set the Spark EV 1LT's new manufacturer's suggested retail price beginning at \$25,995.

Depending on an individual's tax situation, the Spark EV is eligible for federal tax credit up to \$7,500, said GM spokeswoman Annalisa Bluhm.

Currently available at select Chevrolet dealers throughout California and Oregon, select Chevrolet dealers in Maryland will have Spark EV's available beginning in mid-2015.

"Chevrolet is committed to making EV driving more accessible, affordable and fun" said Steve Majoros, director of Chevrolet Car and Crossover Marketing. "The Spark EV is already the most efficient - and one of the most affordable - EVs you can buy. 2015 Spark EV customers will benefit from an impressive blend of technology, capability and low cost of ownership, now at an even more impressive price."

Compared to the average new gas-powered vehicle, the Spark EV can save drivers, on average, about \$83 per month in fuel costs according to EPA assess-

ments based on 24 mpg highway for an average vehicle and 12 cents per kWh of electricity cost, Majoros said. More details are available at fueleconomy.gov.

More than 90 percent of Spark EV owners are trading in a non-GM nameplate or adding a new car to the household, Bluhm said.

"The Chevrolet Spark EV is helping us reach new buyers in critical markets like Los Angeles," said Majoros. "Spark EV owners recognize the car as an opportunity to drive an all-electric vehicle that fits their budget and lifestyle."

The Spark EV features a combined city/highway EPA estimated range of 82 miles when fully charged and an EPA-estimated combined city/highway 119 MPGe fuel economy equivalent, Majoros said.

Unlike most competitors, the Spark EV's battery system is capable of handling multiple compatible DC Fast Charges daily, Majoros said. Charging can also be completed in less than seven hours using a dedicated 240V charge. A 120V charge cord set comes standard. Charging can be managed and monitored remotely using the Spark EV's smart phone application, provided by OnStar.

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Lower Fuel Prices Help GM's First Quarter Truck Sales

DETROIT (AP) – First quarter profit at General Motors rose nearly eight times above a year ago as U.S. consumers spent big on pickups and SUVs and the company didn't have to set aside a huge stack of money to pay for recalls.

The Detroit automaker said it made \$945 million, as consumers got used to lower gasoline prices and decided to buy bigger vehicles. That's right in GM's sweet spot, with trucks such as the Chevrolet Silverado pickup and Cadillac Escalade large SUV. Profit margins on the trucks are sizeable, with analysts estimating that GM makes more than \$10,000 per vehicle.

In the U.S., where GM still makes most of its money, the company sold more than 198,000 pickups, the best first quarter for the vehicles in eight years, according to *Ward's Automotive*. The company also sold nearly 55,000 big SUVs, the best January-through-March period in seven years. It's cheaper to fuel a big vehicle. Gas prices have now been \$3 per gallon or lower for six months. Regular was around \$2.49 April 23, according to AAA, compared with \$3.67 a year ago.

The increased profit on trucks is "clearly a favorable tailwind," chief financial officer Chuck Stevens said, boosting GM's bottom line by \$500 million during the quarter.

For the quarter, the average price of a Chevy Tahoe SUV rose 8 percent to more than \$57,000, *Kelley Blue Book* said. Other truck-based SUVs saw similar or even larger increases.

Although pickup and SUV sales were strong, they were nowhere near the peaks of the previous decade. Pickup sales last quarter

were the best since 2007, when GM sold almost 243,000. Big truck-based SUV sales were the best since 2008 at nearly 107,000.

GM's profit amounted to 56 cents per share, compared with only \$125 million, or 6 cents per share a year ago. In last year's first quarter, a \$1.3 billion charge for an embarrassing series of recalls – including one for a deadly ignition switch problem – diluted the profit.

The company did take a one-time pretax charge of \$100 million to add to its compensation fund for victims of crashes caused by faulty ignition switches. It also incurred a \$400 million charge to cut operations in Russia. Excluding the one-time items, GM would have made 86 per share. That fell short of Wall Street expectations. Analysts polled by FactSet expected earnings of 95 cents per share. Revenue for the quarter fell nearly 5 percent to \$35.7 billion on weakness in foreign currencies and sales declines in South America and Russia.

The miss drove GM shares down 3.1 percent in premarket trading to \$36. Shares are up about 4 percent so far this year.

There were some other rough spots as well. GM's global sales rose only 2 percent for the quarter, and its U.S. passenger car sales were down nearly 19 percent at just under 92,000.

GM has now set aside \$550 million to pay victims of crashes caused by defective small-car ignition switches. So far compensation expert Kenneth Feinberg has deemed 87 deaths eligible for compensation, as well as 157 injuries. GM had previously set aside \$400 million, but said it could go as high as \$600 million.

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Delphi Develops Methods to Help Automakers

CONTINUED FROM PAGE 1

"We have what we call Racams," Brown said. "It's radar technology integrated with a camera that allows the vehicle to better determine what is around it. This allows the driver to operate the vehicle safer by alerting the driver to trouble and even directing the car away from danger. That last part depends on the OEM architecture in a particular vehicle."

Delphi is able to help OEMs with their green issues through better fuel injection technology, Brown said.

"This creates better fuel combustion," Brown said. "This works by having sophisticated oxygen sensors, the engine can optimize the oxygen mix to have the best fuel combustion. So the car makes the appropriate adjustments in combustion protocols, which gives better mileage and less CO2 production."

One of the paradoxes that comes with improving combustion is that because is less CO2 to measure, Brown said, improved CO2 detections sensors had to be developed.

"The federal government has set stricter emission standards," Brown said. "That means that OEMs have to have ways to measure just what gasses their vehicles are producing and they have to measure the quantities so they can demonstrate compliance with regulations."

That has required Delphi to develop better sensors to measure emissions components. And these improved sensors have allowed Delphi to develop systems that can better adjust the combustion process to maximize mileage and minimize emissions.

"An engine needs to determine if it is off spec," Brown said. "If its off spec, it then needs to be able to make the right adjustments so that it is operating at peak efficiency."

So basically, success builds on success. It's through improvements in technology that Delphi is able to help OEMs do what they have to do in a competitive market to meet ever stricter fuel and emissions standards, Brown said. Suppliers that can do that have a bright future in the automotive industry.

Magna Invents New Aluminum Stamping Ways

CONTINUED FROM PAGE 1

powertrain. One way we were able to make our powertrain more efficient was by making it lighter through the use of an aluminum oil pan."

Magna created this oil pan through stamping techniques instead of casting techniques.

"Being able to stamp out the pans means that we were able to make them lighter than if we used casting techniques to create them," Zalewski said. "The new pans are lighter."

The reason why Magna hadn't used stamping techniques before, Zalewski said, is because stamping aluminum is hard.

"To be able to stamp out the oil pans, we had to create new stamping technology," Zalewski said. "That took about three years. To reduce the weight of the oil pans, going with aluminum was really the only option. It's reasonably price and has a great weight to strength ratio. The end result is that we are now able to manufacture an aluminum oil pan that is about three pounds lighter than one made of steel without sacrificing critical factors such as strength."

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PLUS MAJOR LEAGUE TICKET GIVEAWAY.

SPECIAL SAVINGS FOR GM EMPLOYEES ONLY. (NOT AVAILABLE FOR CONTRACT EMPLOYEES)
COME IN TO REGISTER TO WIN ONE OF FIVE BASEBALL SEASON TICKET PACKAGES**

2015 BUICK VERANO



4G LTE WI-FI HOTSPOT, REAR CAMERA, REMOTE START, 18" ALUMINUM WHEELS, INTELLILINK RADIO, BLUETOOTH, SATELLITE RADIO, 10 AIR BAGS, DUAL-ZONE AUTOMATIC CLIMATE CONTROL, ONSTAR W/ TURN BY TURN NAVIGATION & MUCH MORE.

24 Mo. Demo Lease

F4150028 **\$99***

2015 BUICK REGAL



4G LTE WI-FI HOTSPOT, HEATED LEATHER SEATS, 259 HP TURBO ENGINE, REAR CAMERA, INTELLILINK RADIO, BLUETOOTH, SATELLITE RADIO, POWER SEAT, 18" ALLOY WHEELS, ONSTAR W/ TURN BY TURN NAVIGATION & MUCH MORE.

24 Mo. Demo Lease

F9159425 **\$136***

2015 BUICK LACROSSE



4G LTE WI-FI HOTSPOT, REAR CAMERA, INTELLILINK RADIO, BLUETOOTH, ONSTAR w/TURN BY TURN NAVIGATION, DUAL ZONE AUTOMATIC CLIMATE CONTROL, UNIVERSAL HOME REMOTE, USB PORT, SATELLITE RADIO, POWER SEAT, SATELLITE RADIO, 18" ALUMINUM WHEELS & MUCH MORE.

39 Mo. Demo Lease

FF117852 **\$203***

2015 BUICK ENCLAVE



7 PASSENGER SEATING, REMOTE START, REAR CAMERA, REAR PARK ASSIST, POWER LIFTGATE, TRI-ZONE AUTOMATIC CLIMATE CONTROL, INTELLILINK RADIO, SATELLITE RADIO, BLUETOOTH, POWER SEATS, HEATED MIRRORS & MUCH MORE.

24 Mo. Demo Lease

FJ141479 **\$180***

2015 GMC TERRAIN SLT LEATHER SEATS

HEATED LEATHER SEATS, REMOTE START, AUTOMATIC CLIMATE CONTROL, 32 MPG (HIGHWAY), 4G LTE WI-FI HOTSPOT, BLUETOOTH, FOG LAMPS, REMOTE KEYLESS ENTRY, 18" ALLOY WHEELS, REAR CAMERA, POWER SEAT, INTELLILINK RADIO, SATELLITE RADIO & MUCH MORE.



24 Mo. Demo Lease

F6120148 **\$103***

2015 GMC ACADIA SLT LEATHER & SUNROOF

DUAL SUNROOF, HEATED LEATHER SEATS, 7 PASSENGER SEATING, REMOTE START, DUAL-ZONE AUTOMATIC CLIMATE CONTROL, 19" ALUMINUM WHEELS, POWER LIFTGATE, REAR CAMERA, REAR PARK ASSIST, SATELLITE RADIO, BLUETOOTH, INTELLILINK RADIO, ONSTAR W/TURN BY TURN NAVIGATION, & MUCH MORE.



24 Mo. Demo Lease

FJ202544 **\$222***

2015 GMC YUKON SLT - LEATHER, SUNROOF, DVD & NAV

HEATED LEATHER SEATS, 2nd ROW BUCKET SEATS, POWER SUNROOF, IN-DASH NAVIGATION SYSTEM, 20" POLISHED ALUMINUM WHEELS, INTELLILINK RADIO, REAR SEAT DVD PLAYER, REAR CAMERA, FRONT & REAR PARK ASSIST, POWER LIFTGATE, REMOTE START, ONSTAR & MUCH MORE.



39 Mo. Demo Lease

FR203510 **\$504***



DEXOS OIL CHANGE WITH TIRE ROTATION

\$19.95

Tech Center employees only. Must show employee badge. Includes up to 5 quarts of Dexos oil. Good through 5/16/2015.

RAY LAETHEM

MOTOR VILLAGE



17677 Mack Ave.
 between Cadieux and Moross Roads
GROSSE POINTE - DETROIT
(313) 886-1700
www.laethemgm.com

*Plus tax, title, plate, CVR and doc fee. ACQUISITION FEE AND DESTINATION ARE INCLUDED IN PAYMENTS. Leases include 10,000 miles per year. Advertised payments based on Tier 1 credit approval. Must qualify for security deposit waiver. Prices include Buick/GMC lease loyalty (see dealer for eligibility requirements). Pricing for Michigan residents only. Pricing subject to GM program changes. Pictures may not represent actual vehicle. Vehicles subject to prior sale. Payments good through 04/30/2015 unless manufacturer changes programs. ** Grand prize V 1 winner will receive a gift basket and a 41 game season ticket package for 2. First prize V 1 winner will receive a 41 game season ticket package for 2. Second prize V 3 winners will each receive a 27 game season ticket package for 2. Contest entry is made by filling out entry blank in person at Ray Laethem Buick GMC located at 17677 Mack Avenue in Detroit, MI. No photocopied, faxed, mailed or emailed entries will be accepted. Odds of winning depend on total number of entries. Must be 18 years of age or older to enter. One entry person. One winner per household. No purchase necessary to enter. Employees of Ray Laethem Motor Village and their immediate families are not eligible. Contest ends at 9:00 PM on May 4, 2015. Drawing to be held at Ray Laethem Buick GMC on May 5, 2015 at 5:00 PM. Winner need not be present to win.