

# ZENN Motor Company

Digital Press Package





## Table of Contents

	Page
<b>Charge your Car, Change your Life!</b>	<b>3</b>
<b>ZENN Specifications</b>	<b>5</b>
<b>Driving without Guilt: The Evolution of ZENN Motor Company</b>	<b>6</b>
<b>Quick Facts about the ZENN</b>	<b>10</b>
<b>Customer Testimonial – Joseph</b>	<b>13</b>
<b>Customer Testimonial – The Crawford Family</b>	<b>15</b>
<b>Customer Testimonial – Dan &amp; Joe</b>	<b>16</b>
<b>EEStor and ZENN: The (R)Evolution of the Automotive Industry</b>	<b>18</b>



ZENN Motor Company  
Toronto, Ontario, Canada  
(TSXV: ZNN)

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## CHARGE YOUR CAR, CHANGE YOUR LIFE!

**TORONTO, ON – March 3, 2008 - ZENN Motor Company**, a Toronto, Canada based manufacturer of electric cars is sparking a revolution across America with their electric-powered cars. The zippy two-seater ZENN – which stands for Zero Emission, No Noise – looks like nothing else on the road with a stand-out European design. Owners will get noticed as the ZENN car draws more attention than any sports car. The best part - it's 100 percent electric!

So what does an electric car really entail? The ZENN is a complete paradigm shift in the automotive industry. Let's start with the fact that it is a zero-emission car. There is no tailpipe to be found which means no harmful toxins or pollutants. Driving a ZENN is a personal commitment to drastically reducing ones impact on the environment. There is also virtually no maintenance. Beyond the fact that a ZENN owner will never visit a gas station again (except for the occasional windshield washer fluid top-up and tire pressure check) the ZENN requires no oil changes or filters, and no emission tests or inspections. The battery pack charges to 80 percent capacity in as little as four hours using a standard household outlet. In terms of cost of ownership, low maintenance translates into real-world savings. The ZENN can save its owner thousands of dollars over a conventional car.

Cruising speed may come at a surprise – 25 mph. Too slow for some? Americans may be surprised about just how much of their driving can be replaced by a car on any road posted 35 mph and under. Owners typically use their ZENN for 90% of their driving, making it a highly economical choice. The real benefit, however, is the life changing experience driving a ZENN offers. ZENN owners are progressive, socially responsible and proof that it is really possible to make a difference. Neighbors will ask questions...drivers will be stopped at stop signs....what is this car and where can I get one?

The ZENN is made by ZENN Motor Company and the demand for these vehicles is growing rapidly. ZMC sold their entire 2007 inventory and consumers are placing orders now for the 2008 models.

“Charge your car, change your life,” states Ian Clifford, Chief Executive Officer of ZENN Motor Company. “What you drive makes a very strong statement about who you are. By switching from a regular passenger car, driving a ZENN can prevent almost 6 tons of CO<sub>2</sub> per year from endangering the atmosphere. The ZENN is perfect for guilt-free urban driving.”

- 30 -





## **ABOUT ZENN MOTOR COMPANY**

[www.ZENNCars.com](http://www.ZENNCars.com)

Headquartered in Toronto, Canada, ZENN Motor Company is dedicated to being the global leader in producing zero emission transportation solutions for markets around the world. Our current ZENN car is the perfect vehicle for urban commuters, fleets (such as resorts, gated communities, airports, college and business campuses, municipalities, parks and more), the environmentally conscious driver, and consumers who just want to save money. The ZENN is sold through a growing network of retailers across the United States.

The ZENN is a fully electric low speed vehicle (LSV) with European styling and appointments that offers customers tremendous operational cost savings compared to a vehicle powered by an internal combustion engine. Named Best Urban Vehicle at the Michelin Bibendum Challenge, ZENN performed exceptionally well in all categories including excellent overall design, acceleration, braking, lowest power consumption and lowest noise level.

The potential commercialization of the ultra capacitor being developed by ZENN Motor Company's strategic partner, EESstor Inc., will enable future ZENN vehicles to travel at greater speeds and distances just like a conventional car but at a fraction of the cost. Moreover, ZENN electric vehicles won't emit harmful emissions or noise pollution and will provide its owners a freedom from worrying about escalating gas prices – making widespread concerns about oil dependency a thing of the past.

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## 2008 ZENN™ Specifications

MAXIMUM SPEED:	25 mph, limited according to FMVSS 500
RANGE:	Approximately 30-50 miles
CHARGING:	Approximately eight hours (from “empty”) using a standard household outlet (110 volt), 80% rechargeable in four hours
BATTERIES:	6 x 12V Discover™ Advanced AGM maintenance free, valve-regulated, sealed lead-acid
DIMENSIONS:	Length / Width / Height 120.8 in. / 58.8 in. / 55.9 in.
CONFIGURATION:	Two-seater
PROPULSION:	Front wheel drive, 100% electrically driven, 72 VDC (5.69KW) AC drive motor
BODY TYPE:	Three door hatchback, fully enclosed, automotive aluminum alloy Space Frame, ABS polymer panels, aluminum alloy front-end frame
CURB WEIGHT:	Approximately 1,360 lb
GVWR:	1,807 lb
BRAKES:	Dual hydraulic system, 4-wheel disc, 6.7 in. with electromagnetic regeneration
WHEEL BASE:	81.8 in.
TRACK:	Front and rear – 49.8 in.
SUSPENSION:	Independent front suspension with two coil spring / shock units
STEERING:	Automotive rack and pinion with permanently sealed tie-rod ends
SAFETY:	Meets or exceeds FMVSS 500 standards



## Driving without Guilt: The Evolution of ZENN Motor Company

January 17, 2008

Ever sat in traffic, moving ahead by inches at a time, breathing in toxic fumes from the diesel-powered pick-up truck in front of you and thought *'there must be a better way!?'*

Ian Clifford did.

Now here's the difference between you and Ian: he started a car company. More specifically, he started an electric car company with the sole objective of making the world a better place.

Ian Clifford is not an engineer. Actually, Ian was a professional photographer, turned internet marketing company cofounder, turned electric vehicle champion.

The 'ah-ha' traffic moment came to him in 1995, while on his way to digIT Interactive, an internet marketing company in Toronto he had co-founded. He began to search in earnest for an electric vehicle to drive and soon found that this quest would prove difficult. The then recently introduced all-electric GM EV1s and Toyota RAV 4s were not available in Canada. He instead turned his attention to the 1959 Henney Kilowatt car: an almost 50 year old electric vehicle created by the *Eureka Vacuum Cleaner Company* and *Henney Coachbuilders*.

He flew to Hartford, Connecticut to meet a long-time electric vehicle enthusiast, Jack Gretta, who was selling one of his two Henney Kilowatt cars. A quick test drive proved for Ian what he already instinctively knew: Electric vehicles are a viable solution to not only his, but many others' daily driving needs. Plus, electric vehicles are incredibly fun-to-drive, with powerful

acceleration and an unusually quiet ride – this should be an easy sell, right?

Once home in Toronto, Ian quickly put the 50-year-old Henney through its paces, and the Henney lost. The old car needed some repairs. Jack suggested a forklift repair service and Ian had his second 'ah-ha' moment: Electric vehicles are everywhere in the industrial world. The technology already exists to support these alternative energy cars. The repair service sent out Probyn Gayle, a talented tinker-inventor, who became the Chief Technology Officer at the company Ian was about to form – **Feel Good Cars, Inc.**

After selling digIT Interactive Inc. in early 2000, Ian was ready for a new venture, one founded on a philosophy of capital growth tied to social and environmental responsibility: the essence of the ecopreneurial spirit. Along with Probyn, Ian drafted Marek Warunkiewicz, a marketing and branding expert to help build a company that was about creating a sustainable business while declaring open war on climate change. In keeping with this philosophy the company name, Feel Good Cars, was inspired by the guilt-free experience of driving an electric car.

Their plan was to convert the French economy car, the Renault Dauphine, from a gas car into an electric one. During the 50's and 60's over four million internal combustion Dauphines were sold worldwide. It was a fairly straightforward matter to restore the car bodies, remove the internal combustion components and substitute a lead-acid battery energy system. The company called them 'Dauphine Electrics' and their target price was about twenty five thousand dollars.





They began prototyping the Dauphine Electric in the fall of 2000 and by February 2001 they were showcasing their electric car at the Toronto International Auto Show. They printed 5000 brochures in anticipation of modest interest. Extensive media coverage drove consumers to their booth and before the end of the show, the company had 10,000 requests for additional information and 1,000 requests for test drives. They printed an additional 12,000 brochures during the show and sold 15 cars from the first 30 test drives!

The timing was right in Toronto. Year-round smog alerts had become the norm, gasoline prices were rising and global warming was morphing from an alarmist's issue to one of mainstream concern. It was clear that the company's current business model based on the Dauphine could not possibly meet pent up demand. They needed a mass production platform. Enter the Neighborhood Electric Vehicle, or NEV.

A NEV or low-speed vehicle (LSV) is a category of vehicle in the United States and Canada that has a governed top speed of 25 mph (40 km/h) and kept to roads with posted speed limits of 35 mph (60 km/h) or less. These vehicles are designed as city cars, able to negotiate their way through heavy traffic and as a neighborhood runabout – where freeway speeds are not required for a trip to the local grocery store.

This is the vehicle category in which the company wanted to initially play. To develop a freeway-capable car was possible – to do so in a way that was affordable to the masses was not. With NEVs, it was possible to design a safe, affordable car, even as a second vehicle, with existing battery technology.

The company did not want to design a vehicle from the ground up. Aside from being overly ambitious, they believed it was

an unnecessary expenditure and risk of capital. They searched for a suitable host vehicle to utilize as a proven platform to ensure quality and reliability for their customers and found one in Microcar of Europe.

Microcar manufactures an exceptionally lightweight diesel-powered city car – a proven chassis in use for over 20 years and a perfect platform for an electric car. Feel Good Cars brought ten gliders (body without the internal combustion engine, transmission, exhaust system, fuel tank etc...) over to Canada and installed the company's well-researched electric drive train. They discovered through numerous generations of prototypes that the two systems together offered a well-engineered electric vehicle: a solid all-weather car at a competitive price.

The company worked painstakingly for two years, developing the engineering necessary to create an efficient, safe, mass production electric vehicle. Now the challenge would be marketing a paradigm-shifting LSV into the North American market, starting with the United States.

Critical to their long-term goal to build highway capable electric vehicles was seeking out battery technology that would provide growth and platform flexibility in the future. Ian was still committed to changing the world by bringing electric cars to the masses. To that end, radical advancements in battery technology would be required. Ian understood that the company that controlled the rights to the most innovative and advanced energy storage technologies could potentially determine the future of transportation on a global scale. He was about to meet a like-minded individual, Richard Weir, founder of EESor, Inc.

EESor, Inc. is a Texas-based developer of energy storage devices founded in 2001 by



Richard Weir and Carl Nelson, former senior managers in disk-storage technology at IBM and Xerox. EESor was developing an ultra-capacitor that if proven successful, would revolutionize the automotive industry, enabling high-speed, long range electric cars that could be recharged in minutes.

It goes without saying that this piqued Ian's interest in a very big way. EESor's patents reveal objectives that are nothing short of 'replacing the electro-chemical battery' in almost every application and ultimately eradicating the internal combustion engine.

A proposed 300 pound 52 KWH EESU (Electrical Energy Storage Unit) would have a projected charging time of 3-6 minutes, use no hazardous materials and unlike traditional batteries, its storage capacity would be negligibly impacted by cold temperatures. It could power a mid-size sedan for several hundred miles at highway speeds. The EESU would be akin to 'the holy grail' in terms of battery technology.

EESor was looking for an investment partner and FGC was looking for technology that would bring electric cars to the masses. After extensive due diligence, FGC determined that EESor had a viable storage technology and the two companies negotiated an agreement that granted ZENN worldwide exclusive rights to use EESor's solid state technology in electric cars mid-size and smaller (more than 30 million cars a year are sold worldwide in this category). as the Company also acquired a global license to all aftermarket conversions of any internal combustion passenger vehicle to electric drive.

As a testament to the viability of this venture in energy storage, Kleiner Perkins Caufield & Byers - a leading venture capital company who were early investors in Google™, Amazon.com® and Palm® also made an investment in EESor. It should also be

noted that Nobel laureate Al Gore, a fan of the ZENN, has recently joined Kleiner Perkins as a partner.

In 2005 the company met their future investment banking firm, Toronto-based Paradigm Capital and a future investor and chairperson of the board, Rick McGraw.

Rick and other investors had created a Capital Pool Company or CPC on the TSX venture exchange (tsx.v). A CPC is similar to a SPAC in the USA (Special Pool Acquisition Company), which is specifically created to search out investment opportunities in private companies who are interested in going public.

As an automotive industry veteran, Rick McGraw saw a unique opportunity in the company's market proposition and had his own 'ah-ha' moment behind the wheel of an early ZENN prototype. By January of 2006, Feel Good Cars Corporation was a public company on the Toronto Stock Exchange – Venture Exchange.

The company concluded that the time was right to commercialize its prototyping and research. The exciting opportunity attracted top professionals to the organization including Brian Cott, President and COO, a seasoned management executive from the high-tech industry; Michael Bergeron, VP Engineering, a former engineer at Global Electric Motors, the largest NEV manufacturer in the United States; Larry Schreiner, CFO, also a seasoned management executive from the high-tech industry; Gilles Allard, VP Production, a veteran of the automotive industry with over 20 years of assembly and manufacturing experience; and Dennis Hancock, VP Sales and Marketing, an expert on all aspects of automotive marketing.

The company had amassed an impressive amount of expertise in the industry. In June





2006, the first model produced won the Michelin Bibendum Challenge in Paris for the **Best Urban Vehicle**. The car performed exceptionally well in all categories including excellent overall design, acceleration, braking, lowest power consumption and lowest noise levels.

Part of their go-to market strategy included a re-branding and overall name change. It was during this period that **Feel Good Cars** became **ZENN Motor Company**.

The ZENN car has met with immediate consumer interest and sales are ramping up across the United States. Increasingly, consumers are beginning to re-think their transportation needs and ultimately what legacy they want to leave behind in terms of environmental impact.

Al Gore's campaign to raise awareness of climate change is also helping to bring environmental technology and the concept of the electric car from the 'socks-and-sandals fringe' to the mainstream.

By mid 2007, 18 months after the company went public; cars were being delivered to a network of over 35 retailers in 20 states. The Company is successfully executing

against its marketing plan by building up its national retailer base in key target markets.

And what about EEStor? EEStor has successfully delivered on every milestone to date. The company is confident in EEStor's stated commitment to deliver 'the holy grail' in 2008. Recently EEStor's announced that Mr. Morton Topfer, former Vice-Chair of Dell Computer Corporation, had joined its Board of Directors. And Lockheed Martin announced an exclusive international rights agreement with EEStor to integrate and market EESUs for multiple security applications.

**ZENN Motor Company** evolved out of an idea, a passionate reaction to the irrational situation that many of us find ourselves in everyday – battling the daily commute and poisoning the planet as we do so. It is now a growing company poised to take advantage of the massive wave of green awareness and eco-activism. The ZENN car offers consumers a guilt-free driving experience. Drivers reap the benefit of helping to dramatically reduce air pollution while saving money on fuel. The ecological imperative that motivated Ian and the vision he initiated – creating a safe, non-polluting mode of travel – is now shared by millions.



## ZENN Quick Facts

### Internal combustion engine vehicles are a growing problem

- There are 587 private passenger vehicles per 1,000 persons in the United States (compared to 413 per 1,000 persons in Western Europe) resulting in greater consumption of resources and higher road congestion
  - *Transport Energy Use and Greenhouse Gases in Urban Passenger Transport Systems, 2003)*
- More vehicles and higher use results in greater environmental degradation – CO<sub>2</sub> emissions per person in America from private passenger vehicles are estimated to be 4,405 kg annually compared to 1,269 kg per person in Western Europe.
  - *Transport Energy Use and Greenhouse Gases in Urban Passenger Transport Systems, 2003)*
- Internal combustion engines are inefficient in converting fuel to energy - more than 65% of the energy in each gallon of gas is wasted inside an internal combustion engine creating only heat, noise, friction and vibration!
  - U.S. EPA - <http://www.fueleconomy.gov/feg/atv.shtml>
- American-made vehicles have been getting bigger and more powerful but fuel economy, measured in miles per gallon, has been stagnant for the past 12 years.
  - *Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2006 - Executive Summary*

### Dependence on oil as a fuel is a growing problem

- World oil production is predicted to peak by 2010 (“the big rollover”) and then to enter a phase of irreversible decline, leading to shortage and supply interruptions, rapidly rising prices and a greater concentration of oil power in the Middle East.
  - *Transport Energy Use and Greenhouse Gases in Urban Passenger Transport Systems, 2003)*
- The US burned about 20.6 million barrels a day in 2005, and **imports were 65 percent** of the total.
  - Source: “*Bush’s plan to wean US off imported oil: ambitious enough?*” Feb. 02, 2006
- Other countries will increasingly compete with the U.S. for the oil available for export. Consumption by industrializing nations will double over the next 25 years, from 15 to 32 million barrels a day. To meet projected world demand of 118 million barrels a day in 2025, global oil output would have to expand by more than 50 percent -- 40 million barrels per day -- between 2002 and 2025.
  - Natural Resources Defense Council



## Damaging effect on the environment is a growing problem

- Carbon dioxide is the primary component of greenhouse gases (GHG) which are considered to be a major cause of global warming
- The biggest source of carbon dioxide gas in the atmosphere comes from vehicle emissions. Refining one gallon of gasoline releases 24 pounds of carbon dioxide into the air. Another 19 pounds of carbon dioxide is emitted when a gallon of gasoline is burned in an automobile.
  - EPA Office of Transportation & Air Quality, *Emission Facts*, 2005
  - New York Times, *A Refinery Clears the Air to Grow Roses*, June 30, 2006

## The ZENN Solution: “Enlightened Mobility”

### Light on the environment

- The ZENN does not use any gasoline for fuel. Its batteries get recharged by plugging into any standard electric outlet. ZENN owners normally recharge at home overnight.
- The fuel efficiency of the 100% electric ZENN is equivalent to about 245 miles per gallon – about 10 times higher than the average for an internal combustion engine!
  - A gallon of gas has an energy equivalent of 33.5 kwh. ( National Association of Fleet Administrators, [www.nafa.org](http://www.nafa.org)) One gallon of gas provides the same energy as fully charging the ZENN about 7 times. This is an equivalent fuel economy of 7 x 35 miles/charge, or 245 miles per gallon.

### Light on the air we breathe

- The ZENN does not produce any emission (Zero Emission, No Noise). In fact, the ZENN doesn't need, and doesn't have, a tail pipe, exhaust system, catalytic converter or muffler.
- Driving a ZENN results in a 77% net reduction in greenhouse gases even considering the mix of sources of electric power generation.
  - DOE/EPA, *Carbon Dioxide Emissions from the Generation of Electric Power in the United States 2000*
- A new study for the Department of Energy found that "off-peak" electricity production and transmission capacity could fuel 84 percent of the country's 220 million vehicles if they were plug-in hybrid electrics.
  - Newswire - Mileage From Megawatts: *Study Finds Enough Electric Capacity to 'Fill Up' Plug-In Vehicles Across Much of the Nation*, December 11, 2006



## Light on the Earth

- The ZENN converts electric energy to motion very efficiently. Unlike an internal combustion engine vehicle, the ZENN does not require an exhaust system to vent emissions from incomplete fuel combustion, a muffler to control excess noise or a cooling system to disperse excess heat.
- ZENN was awarded a Gold Medal as **Best Urban Vehicle** at the Michelin Bibendum Challenge in Paris. The ZENN performed exceptionally well in acceleration, braking, power consumption and noise level in competition against a field of alternative fuel vehicles from around the world.

## Light on the pocketbook

- Every year, Americans spend an average of \$1,368 per household on gasoline and oil for personal transportation.
  - U.S. Department of Labor, Bureau of Labor Statistics, web site: [www.bls.gov/pub/special.requests/ce/share/2002/income.txt](http://www.bls.gov/pub/special.requests/ce/share/2002/income.txt), April 2005.
- Electricity would cost the average driver about **\$240** if the ZENN was used for **all** trips for a whole year.
  - Based on average vehicle miles per year
- The ZENN costs about 2¢ a mile or less to drive, depending on your retail price of electricity compared to 10¢ a mile or more with an internal combustion engine.
  - Based on average U.S. retail electric rate of 10.15 cents/kwh  
Source: Energy Information Administration, Form EIA-826, *Monthly Electric Sales and Revenue Report with State Distributions Report*, 2006
- Americans spend an average of \$652 per vehicle each year on maintenance and 44% of American households have **3 or more** cars.
  - Source: 2004 Bureau of Labor Statistics Consumer Expenditure Survey

## The ZENN: Practical, affordable and fun

- 47% of Americans have an average roundtrip daily commute of 20 miles or less, well within the ZENN's travel range of 30-50 miles per charge.
- Average "road network speed" in selected American cities ranged from about 24 mph in New York, NY to 39 mph in Sacramento CA in 1991. Increased congestion is likely to have reduced average speed since then.
  - Source: Urban Transport Fact Book, *Roadway Speed & Population Density: International Urban Areas, 1990/91*
- The ZENN incorporates an automotive chassis with seat belts, lights, mirrors, wipers, and climate controls that would be expected in a conventional vehicle. Options include power windows, panoramic sunroof, keyless remote entry and other features so that being responsible and economical can also be comfortable and fun!





## Portrait of a Seattle ZENN Owner: Joseph



Caption: Joseph and his ZENN

Joseph, owner of the White Horse Trading Company a tavern on Post Alley in the historic Pike's Place Market in downtown Seattle, is the consummate urban traveler. He hasn't owned a car since 1985, and, until he moved five miles from his bar, didn't drive one either.

He bought a **ZENN** seven months ago because he needed a "downtown car" to commute efficiently from home, as well as a vehicle that could carry the wine that he purchases from distributors and importers around the city –And he was looking for an affordable vehicle that would pay for itself in the long term.

The **ZENN** fit the bill in every way. The ZENN's roomy interior and 13 cubic feet of cargo space more than meet his needs and his insurance is only \$25 a month! He has noticed no increase in his home electric bill where he charges the car overnight. In fact, he has had no operating expenses since he purchased the car, and it has performed faultlessly.





“I liked the zero pollution component of the **ZENN**, though it is the cost saving that proved to be the key factor in my decision,” said Joseph. “I drive about 60 miles a week and expect the battery to last at least several years.”

Joseph, who lived in Belgium for years, had an immediate affinity with the **ZENN**: it reminded him of the Renault R3 he drove in Europe. He finds that the **ZENN** has the same simplicity and directness as the Renault.

When Joseph brought the **ZENN** home he crawled in and around it for two days, fascinated by the straightforward engineering. Others share his curiosity. He has been followed home four times by curious drivers who wanted to know its operating details and where he got the car. Joseph's son Liam, who is four, sits in his car seat and exclaims “I am riding in daddy's race car” which makes him even more convinced that he has made the right choice to buy a **ZENN**!





## Portrait of a ZENN Owner: The Crawford\* Family



\*Name changed to protect privacy

The Crawford family lives in Lynwood, a suburb of Seattle. Ms. Crawford is a teacher who drives less than two miles to work, where she leaves her car all day. She decided it was silly to use a muscle car for her short commute and looked around for alternatives. She chose a ZENN from MC Electric vehicles of Seattle.

Several months after they purchased their ZENN, Aron Crawford turned 16. He had been practicing with the ZENN, felt comfortable driving it and decided to use the family electric vehicle for his licensing test. As he waited for the department of motor vehicles examiner, he felt nervous. But he quickly got over his fears when the examiner showed more interest in the car than his driving, peppering him with questions (where it is made? how much does it cost? how do you recharge it?). At one point they drove by some kids near the DMV who realized he was taking his test in an EV and the group broke into cheers. Aron passed his test with flying colors. The instructor told Aron he was probably the first person to earn a driver's license in Washington in an electric vehicle, and it made her feel proud to be a part of history.

Ms. Crawford says the ZENN is the perfect car for a teenager. "It addresses the two biggest concerns of most parents—speed (obviously a 25 mph top speed is safe), and distance (the ZENN has a range of 35 miles). The ZENN is teen-proof!"





## ZENN Owners: Dan & Joe



Photo Credit: Frank Solle

### **Taking life at 25 mph, and *Loving* it!**

Dan, a retired professor of marketing from San Francisco State University, is an electric vehicle enthusiast and previously leased an experimental EV from a major manufacturer from 1998-2003 while living in California. He lives with his partner Joe on Beaver Island, a remote community in Northern Michigan. After watching the documentary “Who Killed the Electric Car?” they were motivated to seek out a new electric vehicle and began a comprehensive search online. The documentary mentioned several EV manufacturers and after evaluating their offerings, they decided on a ZENN. Says Joe, “One of the things we liked about the ZENN was that it really is a car rather than like a ‘beefed up’ golf cart where we had to option everything including the doors.”

Dan contacted Vic Staley at North Central ZENN and decided on a blue car with the upgraded Discover batteries. Dan and Joe also made a special request– they asked if the workers at the St. Jerome manufacturing facility would sign the underside of the hood, a request ZENN Motor Company was happy to oblige. Five weeks later, their custom ZENN was delivered to their home on Beaver Island complete with signatures and a photograph of all the workers who built their new electric car.



### **A liberating driving Experience**

Six weeks into ownership and over 1100 miles later, Dan and Joe were delighted with their ZENN. “There are other electric vehicles on the island, but our little blue car seems to catch everyone’s eye.” They are often stopped by the curious wanting to know more. They even began taking pamphlets with them to leave tucked under the windshield wiper. “People just look at us, everyone just wants to know [about the car], we give them a card and a handout and they always want to look inside.”

They live in a remote area of the island, and the ZENN is used for their daily 20-mile round-trip commute to town across dirt and gravel roads and mildly hilly terrain. The cargo space of the ZENN has really come into play – facilitating the transport of everything from recyclables to groceries. “We can pack a full load of groceries in there and still have room to stop at the airport to pick up a FEDEX or UPS. Living on a remote island Dan and Joe were also paying higher than average fuel costs that began to soar earlier this summer. When the price of gasoline reached \$4.50 per gallon, they decided to act. The result is significant cost savings on fuel and an increased freedom of mobility. “We think nothing of hopping in the car and going for a ride somewhere; it’s been a liberating experience with respect to gas prices” said Joe.

### **Unexpected perks...**

The increase in joy riding around the island has also delivered unexpected benefits – an even deeper appreciation for the island environment. Their daily 20 mile journey is peppered with an increase in wildlife sightings – which they attribute to the quietness and speed of the ZENN. “We are able to get so close to the wildlife... we’ve had the opportunity to see some amazing things since we’ve gotten the ZENN” stated Joe. “It’s one of the fringe benefits that we didn’t really anticipate. We’re enjoying the natural beauty of the island more because we’re just going slow and taking our time.”

### **EV-Friendly Community**

In addition to local wildlife, the community is beginning to embrace electric vehicles. Where once pick-up trucks and 4 x 4’s dominated the island’s automotive landscape, there are now 6 to low-speed electric vehicles like the ZENN lining local streets.

Dan and Joe turned their ZENN into a float for the town’s 4th of July parade, decorating it with signs that read “Clean Water, Clean Woods, Zero Emissions, No Noise, Happy Energy Independence Day.”

### **Final Thoughts**

Says Joe, “It’s just great...it seems to be a much better way of making a vehicle go than the internal combustion engine. It seems to be much more streamlined...I love having an electric car. The ZENN is cute. Everyone seems to really, really like the way it looks. It’s fun to drive, it’s a great car.”



## **EEStor and ZENN: The (R)Evolution of the Automotive Industry**

### **Introduction**

Imagine a car that was whisper quiet at highway speeds, could go for hundreds of miles and left no trail of emissions behind. This car would never need to visit a gas station, and would top off its 'tank' within a few minutes.

The car is electric...and it's powered by a revolutionary energy storage system: EEStor's EESU (Electrical Energy Storage Unit). To put this into perspective, imagine a car that enabled guilt-free driving, eliminated dependency on foreign oil and that completely changed transportation as we know it.

When ZENN Motor Company was founded in 2000, it was with the ultimate goal of addressing the escalating climate crisis by bringing electric cars to the masses. EEStor's EESU is the tool that will enable the realization of that goal. It is an ultra-capacitor storage device that acts like a 'super' battery for transportation and other applications. There is an enormous amount of interest regarding this technology, especially given that Lockheed Martin has secured an exclusive technology agreement to use EEStor's EESU in military and homeland security applications and Morton L. Topfer, a former Vice Chairman of Dell Computer Corporation has joined EEStor's Board of Directors. Kleiner Perkins Caufield & Byers, a leading venture capital firm also took a financial interest in EEStor, and Fortune Small Business Magazine has identified EEStor and ZENN Motor Company as one of "The Disruptors" to watch in the coming year.

In anticipation of the EEStor technology being successfully commercialized, ZENN Motor Company is readying its plans to incorporate the technology in its ZENN product offerings. In addition, ZMC has begun investigation of options for developing its future generation of longer-range, highway-capable vehicles. Two of the more promising opportunities being examined are retrofit kits and a small to mid-size automobile (curb weight less than 3000 lbs/1400 Kg) with highway capable speeds and range. The retrofit kits would be designed for mass conversion of specific existing automobiles from internal combustion to electric drive train. On the new car front, while the final specifications have yet to be confirmed, the Company is exploring the development of small and mid-size cars that have a top speed of 65 to 75 MPH (105 to 120 KPH) and a single-charge range of 200 to 400 miles (325 to 650 Km). Subject to satisfying local homologation requirements, these new vehicles would be distributed to major markets globally. The Company estimates that global annual sales unit for this size of new car to be in excess of 30 million. Third party discussions have been initiated to assess possible manufacturing and distribution scenarios.

### **EEStor Background**

EEStor was founded in 2001 by Richard D. Weir and Carl Nelson, former senior managers in disk-storage technology at IBM and Xerox. The Company maintains a low profile, but others in the automotive and CleanTech communities are calling their storage technology 'game changing'. Such a breakthrough has the potential to transform the energy sector and the automobile industry in particular.





The following table provides a comparison of specific features of current power storage technologies with EESor's claims relating to the EESU:

**Table 1 – Parameters of each Technology to Store 52.2 kWh of Electrical Energy**

	<b>Ceramic EESU</b>	<b>NiMH</b>	<b>LA(Gel)</b>	<b>Lithium-ion</b>
Weight (pounds)	300	1716	3646	752
Volume (sq inch)	4541	17,881	43,045	5697
Discharge rate	0.02%/30 days	5%/30 days	1%/30 days	1%/30 days
EV Charging time (full) – 100% charge	3-6 min	>3.0 hr	3-15 hr	>3.0 hr
Life reduced with deep cycle use	None	High	Very High	High
Hazardous materials	None	Yes	Yes	Yes
Temperature effect on energy storage	Negligible	High	Very High	High

(Source: EESor Inc.).

(1) If market demands require larger or smaller models, these, too, can be produced.

**Licensing Agreement Details**

ZMC entered into an initial agreement with EESor dated August 24, 2004 (with subsequent amendments dated November 26, 2004, September 30, 2005, August 8, 2006 and January 22, 2007) to acquire in perpetuity the worldwide exclusive rights to use EESor's EESU in the following markets:

- All-electric 4-wheeled personal transportation uses for vehicles with a curb weight up to 1,400 kilograms, net of the battery weight, and
- For golf carts and similar-styled utility vehicles, and
- The aftermarket conversion of any internal combustion passenger vehicle to electric drive

The EESor Technology Agreement also provides ZMC with non-exclusive, worldwide rights to manufacture higher horsepower and heavier vehicles. As provided for in the Agreement, ZMC's rights to the technology are subject to making in aggregate, milestone payments of US\$2,500,000.

To date, ZMC has made three milestone payments totaling US\$1,300,000:

- US\$100,000 initial investment made in October 2005
- US\$650,000 upon financing made in January 2006
- US\$550,000 investment based on EESor reaching the purity testing/production capacity milestone made in February 2007. This milestone included third-party verification of EESor producing barium nitrate power meeting specified levels of purity.

The balance of amounts payable under the Agreement total US\$1,200,000:

- US\$700,000 is payable upon third party verification of permittivity testing.
- US\$500,000 is payable upon the receipt of the EESU by ZMC



### **ZENN Equity Investment in EEStor**

On April 30, 2007, the Company completed an equity investment in EEStor. The Company acquired a 3.8% interest for a cash investment of US\$2,500,000 plus costs. The terms of the investment provide the Company with a right, exercisable at its sole discretion, to invest at the same price per share for an additional up to US\$5,000,000 within 30 days of EEStor announcing its permissivity test results meeting the predetermined parameters and verified by an independent third party. The Company's maximum additional investment is subject to reduction depending on the investment participation of other EEStor shareholders in the raise. Should the other EEStor shareholders exercise their maximum investment, the Company's additional investment would be limited to US\$2,000,000. If the Company elects to maximize its additional investment and subject to the investment decisions of the other EEStor investors, the Company's total minimum and maximum equity interest in EEStor would be in the range of approximately 6.2% to 10.5%.

While the Company has specific technology rights under the Agreement noted above, the investment was made to provide ZENN shareholders with participation in the potential upside of other applications of EEStor's technology and is unrelated to the terms of the Technology Agreement.