

## A123 Systems now B456 Systems Inc.

It's official: A123 Systems Inc. is passing through its final phase of existence. The bankrupt lithium ion battery maker, now going by the name B456 Systems Inc., has won court approval for its plan to exit bankruptcy that pays off creditors from proceeds gained by selling off virtually all of its assets.

A123 Systems filed for bankruptcy last October and in January had the sale of its assets to Chinese company Wanxiang for \$257 million approved by the US government, but only after some heavy legal proceeding by Johnson Controls. More recently, the official successor to A123 Systems, called B456 Systems, (yes that's really their name!) reached a settlement with troubled plug-in vehicle maker Fisker Automotive in which \$140 million in claims by Fisker was reduced to \$15 million.

Making use of its new acquisition, Wanxiang is starting a new division called A123 Venture Technologies. The buzzwords are strategic partnerships and game-changing energy storage, and the intent is to use the former A123 systems scientists and labs in Massachusetts and Michigan to further "green-related" technology, but beyond that, the division's purpose is somewhat unknown.



## ABB Flash Charge EVBus

A revolutionary new electric bus that operates without overhead wires will begin operating in Geneva next month. The bus was developed by a public-private consortium including ABB Sécheron, the Geneva public transport authority (TPG) and SIG, the canton of Geneva's utility company and supplier of electricity. The articulated bus works on a flash system that allows it to be recharged in 15 seconds at every stop with an overhead device that delivers 400 kilowatts of electricity. The vehicle is capable of storing enough energy to operate between stops. At the end of the bus line a 3 to 4 minute boost enables the full recharge of the batteries. Thanks to an innovative electrical drive system, energy from the roof-mounted charging equipment can be stored in compact batteries, along with the vehicle's braking energy, powering both the bus and its auxiliary services, such as interior lighting. (TOSA) Trolleybus Optimisation Système Alimentation is a zero-carbon-emission solution as the electricity used comes entirely from clean hydro power.

## CA-MiEV



The CA is aimed at the European market where the range equates to "about one week of driving for an average European driver." If you need more, Mitsubishi hints that the flat battery pack leaves room for a range-extender. Add in convenience features like WiTricity wireless induction charging and the ability for the car to send an emergency email if it's stolen, and you've got the commuting vehicle of the future. The CA has a coefficient of drag of just 0.26 and boomerang lights, of course. Not intended as a production vehicle the CA is a test bed that is more likely to provide the technology for the likes of the Citroen C-Zero or Peugeot iOn – which are both i-MiEv clones.



## Mitsubishi CA-MiEV

Mitsubishi is stretching the electric jellybean. At this year's Geneva Motor Show, Mitsubishi unveiled a version of the i-MiEV that looks much more at home among the alternative-powertrain car fleet of the near future.

In this new version the i-MiEv the range goes from the proven official range of 100km to a whopping 300km. The Concept CA-MiEV – where the CA stands for Compact and Advanced – is equipped with a 28-kWh lithium-ion battery and lightweight 80-kW motor/inverter/charger unit. This is kind of astonishing, given the range estimates of other compact and midsize EVs on the market today – most are in the 130-160-km range. Of course, the specific test used to get the 300km - result matters, too, since the regular i only has a 16kWh battery pack when tested on its LA4 driving cycle 160km range.

## SuperCharger

Tesla Motors this week announced significant expansion of the Tesla Supercharger network. Supercharging enables Tesla Model S drivers to travel long distances, for free, indefinitely.

The expansion of the network builds upon the success of the Tesla Supercharger network that covers California and Nevada on the west coast and the Washington, DC to Boston region on the east coast.

The Tesla Supercharger network has enabled an estimated 1 million miles of driving since going live in October 2012.

Superchargers are designed for city to city travel, enabling Model S electric vehicle drivers to travel for about three hours, take a 20 to 30 minute break to grab lunch and get back on the road charged up. For free.

Within six months the Tesla network will connect most of the major metro areas in the US and Canada; making it possible to travel diagonally across the country from Los Angeles to New York using only the Tesla Supercharger network. Neat!!



## Mission Motorcycles The 2 Wheeled Tesla?



Mission Motors took the motorcycle world by storm in 2011 when the San Francisco-based startup entered its prototype Mission R electric race bike to compete in the TTXGP race at Laguna Seca. The Mission R blasted past its competitors and finished 39.98 seconds ahead of the next runner-up.

The company promised that a street-legal version would be released in the near future, but soon announced production delays. Then came the announcement that the company's business model would be shifting away from direct consumer sales and Mission would instead focus its attention on selling EV components to other manufacturers.

Apparently though, all is not lost. - Mission Motorcycles – has been created.

The bike that Mission Motorcycles will be releasing runs a 160-horsepower engine that generates 160Nm of torque. It takes less than three seconds to go from 0 to 100kmh and has a top speed of 240kmh. The battery that powers the bike promises to deliver a riding range of 320km and can be fully charged in approximately two hours. In addition to being an insanely powerful racing bike, the Mission motorcycle is also packed with cutting edge tech. The onboard computer is powered by MissionOS, which riders can access through a seven-inch touchscreen display. LTE is built in and riders can use the display for everything from metrics to navigation.

## Look Where EV's Are Going Now!!



## Lisa Hy-Bird-e

French composite aircraft manufacturer LISA Airplanes are planning the circumnavigation of the globe in their Hydrogen fuel cell/Lithium Polymer/Photovoltaic powered aircraft the Hy-Bird-e. Already successfully providing their Akoya amphibian two place aircraft to lucky customers that can afford the 300000 euro price tag that the Hy-Bird is based on, the Hy-Bird is designed to fly in 3000km hops where hydrogen refueling gives the takeoff thrust without using an ounce of Lithium power. The 65kW motor cruises the Hy-Bird at 200kmh, in non-solar form the batteries will keep the 550kg plane in the air for 2 hours.

Dimensions: **Length:** 6.90 m; **Wingspan:** 11.00 m; **Height:** 2.35 m **Wing area:** 6.70m<sup>2</sup> **Empty weight:** 300 kg; **Max takeoff weight:** 550 kg and a **Climb Rate** of 1020 ft/min make this aircraft a very agile performer. No pricing as yet on the electric version but 500.000 euro would be a reasonable assumption.



## This Month's Technology Review

Meet the latest Speed Controller on the market, the Synkro Motive DC750. The controller can operate from 24 to 180 volts (195 Peak), 750 Amp motor current (900A under hard acceleration) switching frequency 20kHz. The DC750 is unusual in that it is the first High Side Controller I've heard of – this means that the power switching is done on the Positive supply; all EV motor

controllers until now switch the negative supply. One feature; on start-up the ignition switch instigates tests for shorts and looks at various internal and external control points, such as voltages and temperatures. The throttle must be at zero & low traction pack voltage also prevents vehicle operation. Price US\$2099