

**Alternative Technology Association
Melbourne Electric Vehicle Interest Group**

**Minutes for the meeting
held on 24th November 2010, Room EN 615 Engineering Building,
Hawthorn Campus, Swinburne University**

Chairman Michael Jacombs opened the meeting at 7:00 pm with 26 people in attendance.

Michael thanked Swinburne University for the use of the room and facilities for the night's meeting and reminded people who are not ATA members that they can put their email address on a list to keep in touch. Michael also requested that people make a gold coin donation to help defray costs.

Also announced was the meeting was being broadcast live via the web.

Apologies – Name Required.

Minutes from last meeting were accepted.

Announcements

- **Bikefest** – Robert Cook announced that an event called Bikefest is on this coming weekend. It is an inaugural event celebrating the cultural aspects of bicycles.
- **Video Available** – Robert also announced that he has the past two recordings of the meetings on memory stick and they are available for members to get a copy from.

Members projects

- **Glenn Marks** – Glen updated the meeting with the progress of his electric bike.
- **James Kirk** - James informed the meeting that he has taken over the Ford Laser that was on an indefinite loan period to the AEVA. The idea is that it is cleaned up and loaned to members to trial the use of an electric car for a week or so. It has new batteries with about 160 km range with about three weeks work to go.
- **Mario** – Announced that he has started the Capri and got the engine out with the project estimated at taking 100 weekends to complete.

Reports

- Robert Cook put out a call for members to consider volunteering for tasks that are required for the club to run. Mario responded by suggesting that a roster of tasks that members can tick to assist with contributing to the group.
- **News Items** - Michael Jacombs.
News November 2010
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- DBM Energy converted the Audi A2 to all-electric and ran 375miles (600km) on one charge. Used KOLIBRI Li polymer batterieoes.
- Unlike an earlier record run in Japan of 1000 km (620 miles) that was conducted on a track with the vehicle driving at 40 km/h (25 mph), DBM Energy's run from Munich-to-Berlin averaged 90 km/h (55 mph). While the trip is being regarded as a "world record," unofficially, James Worden and Solectria -- now part of Azure Dynamics -- still hold the distance record at 377 miles in March of 1995, driving a Sunrise prototype using experimental Ovonic NiMH batteries. However, as DBM and its power partner, Lekker Energie, contend, it certainly can claim the record as a production vehicle, since the Sunrise never got beyond a handful of prototypes.
- <http://evworld.com/news.cfm?newsid=24242>

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- Oct 30
- British academic dies after her Indian G-Wiz was involved in an accident with another car. Would this have been reported if she was on a motor bike??
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- <http://www.dailymail.co.uk/news/article-1323012/Top-scientist-killed-G-Wiz-electric-car-horror-smash.html>
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- **France's Volteis** produces rural 4x4 electric. 2X4kW motors per axle. Lead-acid batteries (48V 240Ah). A top speed of 70 km/h and a range of 60km: enough for simple rural purposes, but for no more. And, quite importantly, a quite low price of €17,000
- <http://evworld.com/article.cfm?storyid=1927>
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- **Nissan Leaf** starts production @ its Oppama, Japan site to produce 50,000 units per year. Late 2012 will produce 150,000 units in USA & in 2013 produce 50,000 in UK
- http://www.gizmag.com/nissan-leaf-manufacture-japan/16782/?utm_source=Gizmag+Subscribers&utm_campaign=00683e3abd-UA-2235360-4&utm_medium=email
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- **3d printed car**
- http://www.gizmag.com/urbee-3d-printed-car/16795/?utm_source=Gizmag+Subscribers&utm_campaign=da851d7014-UA-2235360-4&utm_medium=email and
- <http://evworld.com/news.cfm?newsid=24260>
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- **GM** moving into China. Will produce a Jetson's like fully covered “e-bike”
- <http://chinaev.wordpress.com/>
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- Also moving into India <http://evworld.com/news.cfm?newsid=24265> and <http://www.indiajournal.com/pages/event.php?id=12926>
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- **China** confirms its main strategic direction for the transformation of China's auto industry will be electric
- http://news.yahoo.com/s/afp/20101028/sc_afp/chinaautoenergyenvironment
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- **Converted T Ford Ice Cream truck**
- http://evworld.com/EVWORLD_TV.CFM?storyid=1932
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- **Mitsubishi Imev** will be a bigger version when released in USA. Price tag of \$US30,000 (cf \$32,780 for the Nissan leaf and \$41,000 for the Chevrolet Volt). Sold 1,900 last year & looking to sell 9,000 in the current fiscal year, 18,000 the next and about 40,000 globally in the year ending March 31, 2013.
- <http://blogs.wsj.com/drivers-seat/2010/11/03/mitsubishi-electric-car-will-be-bigger-when-it-reaches-us/>
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- **Mitsubishi Motors** developing a light commercial EV for parcel collection and delivery operations
- <http://www.electricvehiclesresearch.com/articles/mitsubishi-motors-start-testing-light-commercial-electric-vehicles-00002752.asp>
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- **Mitsubishi** also offers all electric truck through its Fuso brand
- 70kW engine with 300 nm torque. Range 120km at 80kph. 40KW motor. Recharge time 6hrs at 380V
- http://www.gizmag.com/mitsubishi-fuso-electric-truck/16861/?utm_source=Gizmag+Subscribers&utm_campaign=01f3ef2b1c-UA-2235360-4&utm_medium=email
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- **Suzuki** into electric mopeds
- <http://www.globalsuzuki.com/globalnews/2010/0924.html>
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- **Toyoya electric Rav4** to go into production 2012
- Appx 35kW motor 100 km range acceleration similar to v6. Tesla to build battery & related parts
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- <http://www.gizmag.com/electric-toyota-rav4-debut-la-auto-show/16988/>
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- **Cost of running an EV**
- According to the RACV website, the average running cost (excluding all other standing costs, such as registration etc) for a petrol Getz is 12.47 cents per km. Over 20,000 km that's a total of \$2494.
- The cost of recharging the Blade Runner at 20,000 km a year should be around \$194 - provided we recharge the car with off peak GreenPower. That leaves around \$2300 per year to help pay off the \$35,000 conversion cost, and these RACV figures do not allow for recent increases in the price of petrol.
 - <http://www.earthgarden.com.au/greenwheels/bev.html>
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- Brighton to London EV Rally
- 60 eco friendly cars make first run
- <http://www.bbc.co.uk/news/uk-england-sussex-11704376>
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- **Supercapacitor batteries.** Supercapacitors can have 20 year life and the fastest charge discharge but store only 5% of the energy of a lithium-ion rechargeable traction battery. The battery has the opposite virtues. Now, at last, supercabatteries, otherwise known as bacitors, are starting to appear, some even at a capacitance large enough for electric vehicles. There is even interest in

lead acid versions. Taiyo Yuden's new Cylindrical Lithium Ion Capacitor (LIC) offers extremely large energy capacitance and high reliability. Combining the strength of lithium-ion secondary batteries with conventional Electric Double Layer Capacitors (EDLC)s, this next-generation energy device offers an energy density 4 to 10 times greater than EDLCs.

– <http://www.t-yuden.com/news/detail.aspx?id=166>

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– **Fiat 500 EV version.** The CARE 500 has a 24kW three-phase AC motor, a top speed of 120kph (75mph) and a range of 120 km (75 miles). The battery pack consists of two sets of LiFePO4 battery cells, with a combined energy capacity of 15kWh. It recharges in 6-8 hours, via a standard 230V socket. Price E23,900 (\$A

– <http://www.evadapt.com/en/> and <http://www.care-mobility.com/produkt/konzept.html>

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– **Charging companies**

– Elektromotive UK <http://www.elektromotive.com/html/index.php>

– Better Place <http://australia.betterplace.com/>

– CHAdEMO at http://www.chademo.com/eng_page/indexe.html

– <http://ev-chargeamerica.com/>

– <http://coulombtech.com/> and NovaCharge Charge Point who are a distributor of Coulomb <http://www.novacharge.net/index.html>

– e-green technologies an AUS company <http://egreentechnologies.com.au/>

– Epyon headquarters in the Netherlands and several branch offices in the UK, northern- and southern Europe regions http://www.epyonpower.com/Home/Epyon_Power.aspx

Closure

The details of the next meeting was announced which is on February 23 2011 with the topic to be circulated when it the details are finalised.

There will be no meeting in January.