



### SUSTAINABLE MARRICKVILLE 08

<http://www.bikely.com/maps/bike-path/Marrickville-Sustainability-Ride>

**When:** Sunday 30 March 2008 at 8:45am for 9:00 departure.

**Where:** Start & Finish at Stanmore station. Option, lunch Addison Road.

**Length:** 22 km approx.

**Time:** 3 – 4 hours.

**Ride:** easy pace, on road, off road, urban recreational ride.

**Guests:** Caroline Pidcock will discuss sustainable housing and architecture.

John Caley will discuss sustainable technology.

Bruce Ashley will discuss the Green Way and IWEG Bushcare.

“...Congo is not the only beneficiary of China’s hunger for **natural resources**. From Canada to Indonesia to Kazakhstan, Chinese firms are gobbling up oil, gas, coal and metals, or paying for the right to explore for them, or buying up firms that produce them. Ships are queuing off Australia’s biggest coal port, Newcastle, to load cargoes destined for China (pictured above); at one point last June the line was 79 ships long. African and Latin American economies are growing at their fastest pace in decades, thanks in large part to heavy Chinese demand for their resources...”



**A Ravenous Dragon, *The Economist*, 13 March 2008**

[http://www.economist.com/specialreports/displaystory.cfm?story\\_id=10795714](http://www.economist.com/specialreports/displaystory.cfm?story_id=10795714)

“...When fully implemented, the new standards will cut **particulate pollution** from each engine by 90 percent and **smog-forming oxides of nitrogen** from each engine by 80 percent. The health benefits of this rule will outweigh the costs by 15 to 1...”

... Diesel trains and ships, such as ferries and tugboats, are major sources of air pollution. Diesel exhaust contains toxic chemicals that together with diesel particulate matter pose a cancer risk greater than that of any other air pollutant. Each year, diesel locomotives and commercial ships together emit nearly two million tons of smog-forming nitrogen oxides. Both are major sources of lethal particulate pollution...”

**EPA final rule to clean up diesel pollution from trains, ships stronger than proposed rule**

<http://www.edf.org/pressrelease.cfm?contentID=7737>

“...Soot produced by burning coal, diesel, wood and dung causes significantly more damage to the environment than previously thought, according to research published today. So-called **“black carbon”** could cause up to 60% of the current warming effect of carbon dioxide, according to the US researchers, making it an important target for efforts to slow global warming.



Around 400,000 people are estimated to die each year due to inhaling soot particles, particularly because of indoor cooking on wood and dung stoves in developing countries. These deaths are mainly among women and children...”

**Scientists warn of soot effect on climate**

<http://www.guardian.co.uk/environment/2008/mar/24/climatechange.fossilfuels>

“...Assessments of **industrial hemp** as compared to hydrocarbon or other traditional industrial feedstocks show that, generally, hemp requires substantially lower energy demands for manufacturing, is often suited to less-toxic means of processing, provides competitive product performance (especially in terms of durability, light weight, and strength), greater recyclability and/or biodegradability, and a number of value-added applications for byproducts and waste materials at either end of the product life cycle. Unlike petrochemical feedstocks, industrial hemp production offsets carbon dioxide emissions, helping to close the carbon cycle...”

**Illegally Green: Environmental Costs of Hemp Prohibition**

<http://www.reason.com/blog/show/125493.html>

Grown primarily for the 'bast' long fibers in the stem outer layer and oil rich seed, and secondary the 'hurds' shorter inner fibers. Growing was once mandatory on North American farms. It has proven agricultural potential as well as a variety of uses in the building industry. "...Cotton, petroleum-based textiles, and forest products have replaced industrial hemp in some markets it formerly dominated. For traditional textile uses, hemp is probably most comparable to flax, though jute and kenaf are other notable bast fiber competitors. In emerging industrial applications, including composite construction materials and biofuel sources, hemp is often evaluated for performance alongside these and other biomass and oilseed crops, fiberglass, and agricultural byproducts like wheat straw..." ibid.

"...**The low self-discharge NiMH battery (LSD NiMH)** was introduced in November 2005[1][2][3]. It reduces self-discharge and, therefore, lengthens shelf life compared to normal NiMH batteries. By using a new separator, manufacturers claim the batteries retain 70 to 85% of their capacity after one year when stored at 20 degrees Celsius (68F). These cells are marketed as "ready-to-use" or "pre-charged" rechargeables..."

[http://en.wikipedia.org/wiki/Low\\_self-discharge\\_NiMH\\_battery](http://en.wikipedia.org/wiki/Low_self-discharge_NiMH_battery)

"It's poison air. Sometimes it gets so bad you can't sit outside. You have to close all the doors and windows," says Qiao Shi Peng, 28, shown in front of a dumping site in his village...



"...With the prices of oil and coal soaring, policymakers around the world are looking at massive **solar farms** to heat water and generate electricity. For the past four years, however, the world has been suffering from a shortage of polysilicon -- the key component of sunlight-capturing wafers -- driving up prices of solar energy technology and creating a barrier to its adoption..."

...Made from the Earth's most abundant substance -- sand -- polysilicon is tricky to manufacture. It requires huge amounts of energy, and even a small misstep in the production can introduce impurities and ruin an entire batch. The other main challenge is dealing with the waste. For each ton of polysilicon produced, the process generates at least four tons of silicon tetrachloride liquid waste.

When exposed to humid air, **silicon tetrachloride transforms into acids and poisonous hydrogen chloride gas**, which can make people who breathe the air dizzy and can make their chests contract...

He said that if environmental protection technology is used, the cost to produce one ton is approximately \$84,500. But Chinese companies are making it at \$21,000 to \$56,000 a ton.

[http://www.washingtonpost.com/wp-dyn/content/article/2008/03/08/AR2008030802595\\_pf.html](http://www.washingtonpost.com/wp-dyn/content/article/2008/03/08/AR2008030802595_pf.html)

"April 1, 2007 —Engineers have designed a **simple, sustainable and natural carbon sequestration solution** using algae. A team at Ohio University created a photo bioreactor that uses photosynthesis to grow algae, passing carbon dioxide over large membranes, placed vertically to save space. The carbon dioxide produced by the algae is harvested by dissolving into the surrounding water. The algae can be harvested and made into biodiesel fuel and feed for animals. A reactor with 1.25 million square meters of algae screens could be up and running by 2010..."

[http://www.sciencedaily.com/videos/2007/0407-possible\\_fix\\_for\\_global\\_warming.htm](http://www.sciencedaily.com/videos/2007/0407-possible_fix_for_global_warming.htm)

"AUSTRALIAN Government investment funds are putting nearly 50 times more money into the fossil fuel and uranium industries than into renewable energy, a new report has found. Large Government-owned investors, including the Federal Government's Future Fund and state bodies such as the Workcover Authority, are investing in direct conflict with their governments' plans to reduce greenhouse emissions, according to the report, to be released today by the Australian Conservation Foundation..."

**Funds shun renewable energy**

<http://www.smh.com.au/news/environment/funds-shun-renewable-energy/2008/03/17/1205602293074.html>



**Powerlines to The People**

Provincial France today.

Solar power was a growth industry in America until the utilities found a way to deliver electricity. Photographs contained in Ken Butti, *A Golden Thread – 2500 Years of Solar Architecture and Technology* show rooftops in California littered with solar hot water heaters. In the first decades of the 20th century. And the same view after the introduction of electricity. From hundreds to a handful. It parallels the Ronald Regan government's first act as custodians of the White House – removing the solar panels installed by Jimmy Carter's administration.

Website <http://www.massbug.org.au> Email [massbug@massbug.org.au](mailto:massbug@massbug.org.au)