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## Swiss fuel

With the prospect of oil running out some time in the foreseeable future, Swiss researchers are looking for ways of keeping our cars running and our homes warm.

When Hurricane Lothar wreaked havoc across Western Europe on December 26, 1999, Switzerland was not spared. With so many trees felled, there was a glut of wood on the European market and prices dropped. Eight years later, the situation has entirely changed.

The market has become so tight that firewood is being imported

from as far away as the Baltic states. Homeowners are turning to newer and more efficient woodburning stoves to heat their homes, moving away from oil-based furnaces as the cost of petrol continues to rise.

But while providing an interesting alternative to oil, it is not the most environmentally friendly solution. A far more efficient and cleaner process is being developed at the Paul Scherrer Institute (PSI), transforming wood into fuel that can be used either for heating or to generate electricity.

Biomass is usually defined as biological material, usually plants that can be used for fuel and industrial production, but sometimes it is also manure. It is usually considered to be carbon neutral, though this is not always the case.

The solid has to be converted into a gas, then the gas has to be cleaned in such a way that it meets the requirements of the converter system. In the laboratory, wood pellets are burnt in a chamber at high temperatures with little air, partial combustion producing the gas. This is then fed through a catalytic converter like those found on cars. If it is clean enough, it can then be used to drive a fuel cell.

from swissinfo

# "Solartaxi" starts record trip round

Swiss adventurer Louis Palmer set off from Lucerne in his Solartaxi, the first motor vehicle not powered by fossil fuel to attempt to travel around the world. Palmer's circumnavigation is set to take around 15 months and cover at least 50'000 km, 50 countries and five continents.

The Solartaxi consists of a solar vehicle and trailer with solar cells. The vehicle is powered totally by solar energy: 50 per cent of the energy comes from the solar cells on the trailer; the other 50 percent is

produced and fed into the power grid on the roof of the Swisscom building just outside Bern and accessed via power sockets en route. The vehicle, which has a maximum speed of 90 km/h thus uses electricity from 100 per cent renewable energy and releases no emissions into the atmosphere.

The three-wheeler has space for an additional person, and Palmer is using this to pick up fellow travellers along the way. Passengers can also drive, as the steering wheel slides across. from swissinfo



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Fill 'er up: but not with petrol. Swiss adventurer Louis Palmer, left, accepts a few volts from New Zealand's electricity grid via a long extension lead from Swiss Ambassador Dr Beat Nobs' residence in Lower Hutt. Mr Palmer was stopping halfway in his around-the-world trip by alternative electric "Solartaxi" car to promote Swiss technology and environmentalism. Even the electricity is 'paid back' to the grid without fossil fuels.

Photo courtesy Hutt News

### swiss café & bakery 5 Milford Road, Milford, Auckland Ph/Fax 09 489 9737 Owners Franz & Eveline Muller have been baking and serving fine food and coffee at their Swiss Bakery & Café since its establishment more than 12 years ago. Cooked breakfasts as well as a large selection of bakery goods **Specialty Swiss** confect and chocolates Party food including specialty cakes and fancy breads to order Hours: Monday to Friday 8am-4.30pm Saturday 8am-2.30pm Sunday closed