A greener way to power cars

February 20 2008

Cardiff University researchers are exploring how waste heat from car exhausts could provide a new greener power supply for vehicles.

Professor Mike Rowe's long term research interest at the Cardiff School of Engineering has been in thermoelectric generation - employing thermocouples to convert heat into electricity. The conversion technology is used in everyday applications such as controlling the central heating system or refrigerator temperature.

Now Professor Rowe aims to use this technology to generate electricity from the waste heat in vehicles.

Professor Mike Rowe, OBE School of Engineering said: "The main interest in cars is to decrease the petrol consumption and reduce CO_2 emissions. If you can utilise the exhaust heat you could replace the alternator. This would provide a 5 per cent saving in fuel straightaway."

Vehicle manufacturers in the United States are already investing in exploring this technology, however Professor Rowe has found the UK's interest in the technology to be slower.

He said: "Thermoelectric generation is a green solution. It can in many instances cost less than solar energy. It has huge future potential yet it has been neglected to date in the UK."

Source: Cardiff University