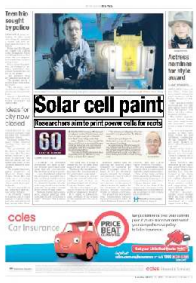

Newcastle Herald, Newcastle NSW
19 Mar 2013, by Matthew Kelly

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Solar cell paint

Researchers aim to print power cells for roofs

By **MATTHEW KELLY**

UNIVERSITY of Newcastle researchers are about to perfect printing water-based solar paint that will revolutionise the application of solar energy.

A new Danish-built printer at the university's Newcastle Institute for Energy and Resources has made it possible to print up to a hundred of metres of solar cells a day. A roof covered in the material can produce enough power for an average house.

"Instead of printing newspapers, imagine printing solar cells that roll out over people's roofs," Professor Paul Dastoor said.

"We think this is going to change the way we think about power in the next five years."

The key to the breakthrough has been the development of the water-based solar paint.

"There's been a lot of work going on to make flexible solar cells but none of them are printing straight out of water," Professor Dastoor said.

"We have developed a process to be able to do that from particles suspended in water."

It is hoped a commercial-scale prototype of the product will be produced by the end of the year.

Professor Dastoor said he expected the material could ultimately be produced for about $7 a square metre. He hopes it will be ultimately possible to paint the conductive liquid on to a roof or wall or use it as a window tint.

Twenty five researchers are now involved in the project, which was also the catalyst for the formation of the university's Priority Research Centre for organic electronics.

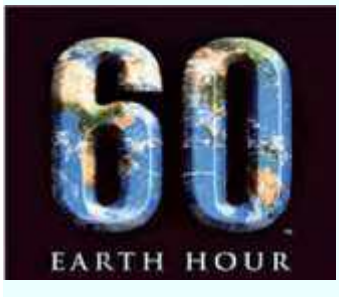
The project will also benefit from collaboration between the priority research centre, of which Professor Dastoor is the director, and the CSIRO Energy Centre in Newcastle.

The two organisations have joined to form a joint research centre for organic photovoltaics.

"One of the many exciting things about the technology is that it opens up the prospect of a new industry in Newcastle," Professor Dastoor said.

"We sit at the head of the largest coal export port on the planet and yet we know that we are not going to be able to mine this coal forever."

Painting on the power
Editorial, Page 10



■ MAXIMISING energy efficiency in small and medium businesses was the hot topic during the *Herald*'s first Earth Hour blog yesterday.

Adam Clarke from Newcastle City Council's Environment and Climate Change Services unit said he was delighted with the response from business operators.

"The issues that businesses face regarding energy efficiency vary from business to business.

"The answer is not going to be the same for every business," Mr Clarke said.

Make sure you log on to theherald.com.au at noon today for our second live blog.

Ausgrid energy efficiency expert Paul Myors will chat about some of the simple steps that householders and the general public can take to save money and reduce their energy use.

PAUL MYORS

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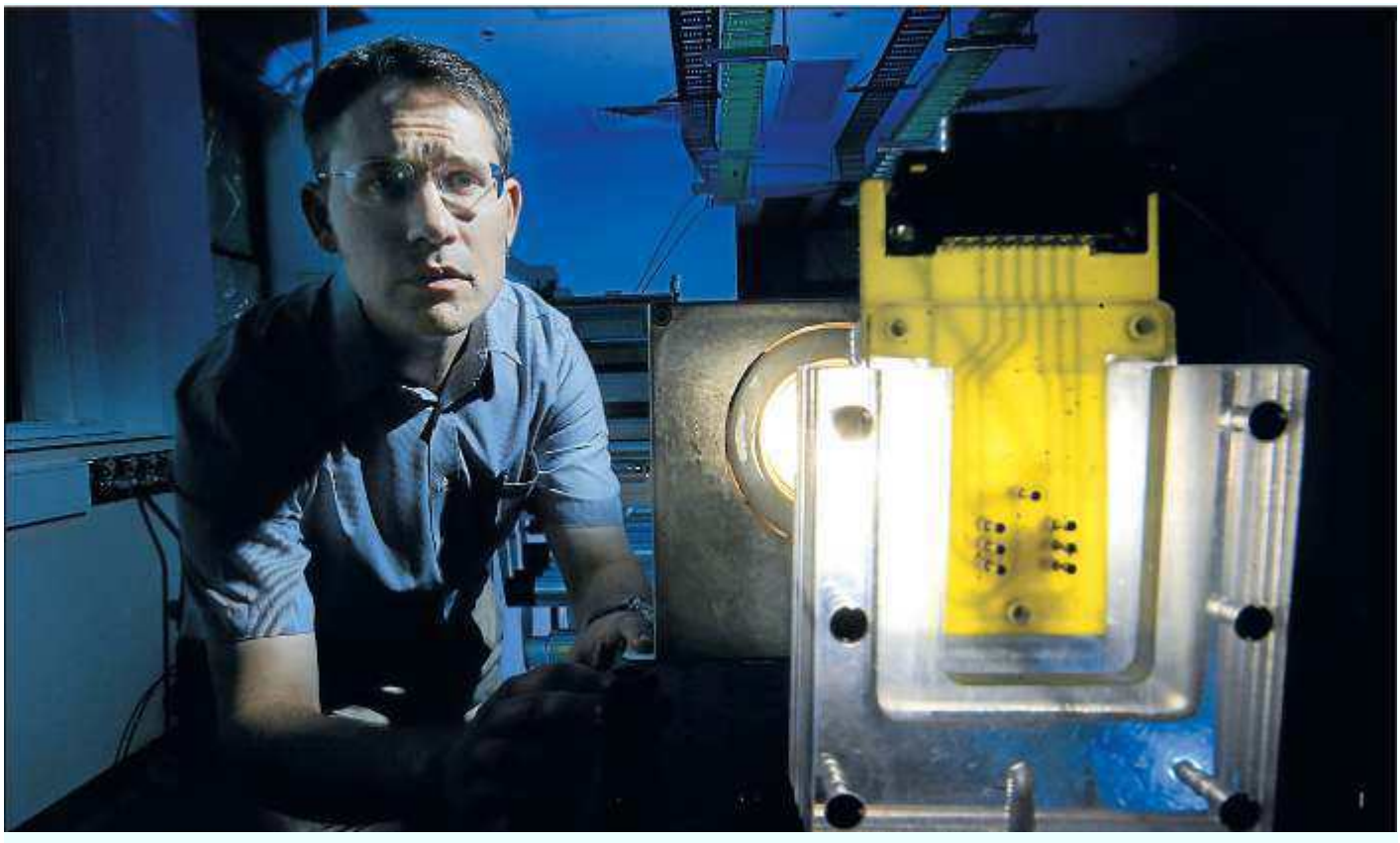

SOLAR SKIN: Professor Paul Dastoor testing solar paint endurance under light equivalent to the sun's strength. *Picture: Peter Stoop*