

Solar rickshaw finds no takers

By K.S. Jayaraman | IANS India Private Limited – Tue 28 Sep, 2010 12:03 PM IST

Bangalore, Sep 28 (IANS) A solar electric rickshaw launched with great fanfare by India's Council of Scientific and Industrial Research (CSIR) two years ago is yet to find any takers. While this is causing concern, a Pune engineer has claimed the CSIR copied his design. The three-wheeled 'soleckshaw' can in principle use solar panels to convert sunlight into electricity to drive its motor. It was developed by the Central Mechanical Engineering Research Institute (CMERI) in Durgapur, West Bengal, a unit of the CSIR, and promoted as a green rickshaw because it emits no gases that can contribute to global warming.

Despite high-voltage publicity, the soleckshaw has not caught on. 'Till now no soleckshaws have been sold in the market on a commercial basis by (our) licensees,' Amit Banerjee, head of the manufacturing technology group at CMERI, told IANS. Around 30 soleckshaws fabricated at CMERI for demonstration were initially deployed in Delhi (at Chandni Chowk), Kolkata, Durgapur, Chandigarh, Jaipur, Dhanbad and Ahmedabad, said Himadri Maiti, senior adviser in the CSIR. 'However, currently they are not in operation due to various local administrative and management problems,' he admitted. Operations within the jurisdiction of the Municipal Corporation of Delhi (MCD) could not be resumed as the civic agency 'has refused to grant a fresh licence' for any rickshaw, he added. The charging stations set up at a few places by the Central Electronics Limited for charging the soleckshaws' batteries 'are not being used at this point of time as the vehicles are not in operation at those locations', Maiti said.

He said the CSIR's plans to deploy at least 1,000 soleckshaws in the Commonwealth Games village in Delhi was abandoned as the Games Organising Committee, after initially agreeing to our proposal, 'backed out on the plea of security issues'. And the CSIR's proposal to operate at least 10 soleckshaws for postal delivery under a pilot project in Rajashtan's Ajmer district is still pending with the postal department, he said. To add to the CSIR's embarrassment, a Pune engineer has claimed that except for some slight changes, the CSIR's soleckshaw is a copy of the electric cycle rickshaw his non-profit research and development institute built some 10 years ago.

'Our electric cycle rickshaws were inaugurated in Pune University campus in 2002 (see photo) and technical details were published in the Indian journal Current Science in its Sep 25, 2002, issue,' Anil Rajvanshi, an Indian Institute of Technology graduate and director of the Nimbkar Agricultural Research Institute (NARI) near Pune, told IANS. Twenty such rickshaws were fabricated at NARI which logged more than 5,000 km in trial runs, he said.

'Ours was the first motor-assisted pedal rickshaw with back wheel braking and gears, which the CSIR also has in its design,' he said.

'Instead of putting a permanent magnet direct current motor at the back, the CSIR used the hub wheel motor on the front wheel and specifications regarding the speed, travel distance per battery charge etc are also almost same,' he said.

'So one can say it is a very good copy of our efforts,' he told IANS.

'In May last year, I even sent them (CSIR) an e-mail telling them they seemed to have copied our design of the electric rickshaw but till today there is no reply,' said Rajvanshi who, after a teaching stint at the University of Florida in the US, returned to India in

1981 to devote himself to research at NARI set up by his father in 1968. The electric rickshaw is one of NARI's products. Others include improved kerosene lanterns, sugarcane leaf gasifier and sweet sorghum -- a sorghum grass variety that can be used as food and fuel.

But Banerjee denied that the soleckshaw is a copy of NARI's electric rickshaw. 'It is a completely different technology,' he told IANS. 'It has been designed, developed and manufactured completely by us,' he said, adding, 'There are a few technical novelties in soleckshaws, compared to any such vehicle in the world, which we cannot disclose at this moment.' Rajvanshi said NARI's intellectual property has been copied by the CSIR but claimed he neither had the resources nor the time to fight the government of India. 'It would have been nice if the CSIR had at least acknowledged NARI's pioneering efforts,' he said. 'We at NARI failed in our attempt to commercialise our electric rickshaws; if the CSIR can popularise theirs and sell them in large numbers then it will be a vindication of our work,' Rajvanshi said. However, that looks like wishful thinking given the fact that two years after its launch there are no soleckshaws on the road except the 10 vehicles that Maiti said were 'currently plying in Faridabad (Haryana) with the initiative of one of the licensees'.

The failure of the soleckshaw to take off is not unexpected, said a senior CSIR scientist who did not want to be named.

'Our primary goal should have been removing drudgery of rickshaw pullers by introducing motorised rickshaws rather than 'green' rickshaws and cutting down carbon emissions,' he said. (K.S. Jayaraman can be contacted at killugudi@hotmail.com)