

## MTA Queensland Industry Awards Finalists

### AUSTRALIAN ELECTRIC INFRASTRUCTURE TRANSPORT & SMARTGEN

WE ALL KNOW that in some form or another our future will be electrified. Name a vehicle manufacturer and you can be certain that at least one electric vehicle is in its model range or on its drawing board.

How best to charge these vehicles in an effective and efficient manner has been a question Rikesh Ram and many other creative-thinking individuals have been working on for some years.

Through his companies Australian Electric Infrastructure Transport and smartGEN, Rikesh has been working on implementing a wireless charging infrastructure to charge electric buses and tram systems, and developing an EV charging station that is designed to generate power through renewable energy.

The wireless charging technology, developed by an overseas university, was launched in 2010 and that year was named a 'Best 50 invention' by TIME Magazine. It comprises 150m long electric strips embedded in the road surface that transfer energy to EVs that pass over them. Enabling EVs to charge while on the move not only means that range is no longer an issue but could see EVs use much smaller batteries as heavy, long-range batteries would no longer be required.

The smartGEN charging station is designed to use both solar and wind to

generate renewable energy which it then stores in an integrated battery storage system. The design would allow the stored energy to be used to charge all manner of battery-powered items, including EVs, thanks to multiple charging connectors that include 3-pin plus, USB charge points and EV charging plugs.

"Our innovations are the key to enable the uptake of EVs," said Rikesh. "With smartGEN we are looking to disrupt how EVs are going to be charged with renewable energy and be at no cost to EV owners except for a low annual membership fee. Imagine a world where you can buy a car and your fuel would be free forever.

"AEIT will take this further so that you won't have to stop and plug in your car to charge - you will be able to charge it as you drive," he added. "Imagine driving down the highway and to top up your 'fuel' all you need to do is drive onto the lane which has our wireless charging infrastructure. You will be able to top up your battery giving you that extra range needed, and you will be able to do this throughout your journey.

"The benefits of our technology will be to reduce transport emissions, reduce the fuel costs we all face, reduce our dependence on imported fuel, and assist in making our environment cleaner for future generations."

Rikesh added that for both AEIT and smartGEN to be named as finalists in the MTA Queensland Innovation award was a great surprise but incredibly pleasing.

"We are definitely proud to be recognised in this way, and proud to know that industry is observing and is supporting us to break through the glass ceiling we have in terms of support for innovative technologies and innovative companies."

