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Turbines atop towers may make calls 'flood-proof'

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Chennai: Among the bad memories of Chennai floods was cell phones conking off and not working for days. If a pilot project to install wind turbines on cellphone towers is successful, the towers may have self-generated power even during floods.

In December, the backup diesel generators couldn't be operated because of water stagnation. With windmills atop towers, even if the city is in total darkness for days, your cellphones would be working — naturally, cleanly.

Small wind turbine manufacturers have begun working on this and Chennai will so-

on see these windmills atop towers for trials. "The turbines will be of 1kW to 3kW capacity and the power generated will be enough to run the mobile tower," Indian Wind Turbine Manufacturers Association secretary-general D V Giri told **TOI** on Thursday.

There are technical challenges and work is on with

the pilot project on telecom towers. "An international conference on wind power in New Delhi next January will discuss small turbines and the challenges of using these turbines on cellphone towers. We are planning to allocate an entire session for this," he said.

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Wind turbines to make mobile towers self-sufficient

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Most of the mobile towers in the country are 60 metres high and are set up on high-rise buildings.

"At this height, the wind speed must be 4.1 metres per second, which is enough for a small wind turbine. In a coastal area like Chennai, this speed is available at 40 metres typically. The Chen-

nai-based National Institute of Wind Energy will be able to forecast the wind speed of a mobile tower at a particular area," said Giri.

Large wind turbines are typically more than 1MW but these cell phone towers turbines will produce less than 1,000th of that power but will be enough to make the towers self sufficient.

"The cost of installation of 1KW of wind turbines is

around Rs 2 lakh and each telecom turbine requires a minimum of 3kW. The renewable energy ministry gives Rs 1 lakh as subsidy per kW. By installing wind turbines on mobile towers, diesel cost of around Rs 1.75 lakh per year can be saved and pollution from diesel fumes can also be avoided," he said.

Expressing optimism for the wind power industry in

Tamil Nadu as well as in eight other states which have wind power capacity, Giri said "this has been an exceptional year for wind power in Tamil Nadu. There has been better evacuation and money disbursal by Tangedco. Lifting of section 11 of the Electricity Act has permitted us to sell wind power outside the state but till now no private company has sold power outside the state".