Concerns with Electric Cars

What is the issue?

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Though electric cars are far less polluting, they pose a challenge to Indian driving practices

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What are the characteristic features of e-Cars?

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- These are Far less polluting and carbon-emitting.
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- Electric motor is much quieter than the engine and the transmission system has fewer parts too.
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- After getting started can very quickly ramp up to full speed, unlike the internal combustion engine that needs to idle and takes time to increase speed.
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- While the cars are in motion all one hears is wind, tyre and road noise, which is minimal in city driving.
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- Another crucial, efficiency-boosting attribute of the electric car is regenerative braking.
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- By this the electric motor powering the car can reverse its role, becoming a generator and charging the battery.
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- The generator load is the resistance that provides braking torque and it can be varied if one want to just bring down the speed, not stop the car altogether.
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What are the challenges India would face?

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- Indian driving is likely to be disrupted by electric vehicles that the Indian government seems keen on introducing, without transitioning to hybrids.
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- The features of electric cars don’t sync with our present state of driving.
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- In India,two-wheelers and cars don’t consider lanes importantand they switch lanes frequently taking sharp turns.
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- Drivers seem to be possessed by a primal urge to get ahead of others even if it means them to jam hard on their brakes.
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- Jamming on the brakes may make regenerative braking less useful and the energy savings can come down.
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What needs to be done?

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- Vehicles driven by internal combustion engines, with their inherent limitations, are a good fit for Indian drivers.
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- These vehicles take their own time to speed up and, hence, don’t feed into the manic urges of Indian drivers.
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- Electric vehicles for India need elaborate transmission systems and, in unison, the engine and the transmission create enough noise to alert others to their presence.
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- At the same time manufacturers can add a time delay in the software.
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- Consumer behaviour and adoption will determine the system that electric vehicles in the future will have.
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Source: The Hindu

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