



CURRENT NEWS

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CONSIDERATIONS BEFORE BUYING AN EV TWO WHEELER (PART -1)

G.N.BHARATH RAM

I have been riding a petrol-powered two-wheeler for the past ten years. The familiarity, convenience, and the sound of the engine were all part of my daily routine. When considering a new vehicle, my confidence level in choosing a petrol vehicle was therefore understandably high compared to choosing an electric vehicle (EV). But times have changed - and certainly petrol prices! The petrol price touched Rs.102 a litre in 2021 and continues to remain around the same till today! Before the price hike, I spent Rs. 200 a week on fuel charges. Now, I spend Rs.500, which is 250% more. Advertisements on various media platforms were also instrumental in guiding me towards an electric two-wheeler.

A publication from



CAG

Citizen consumer and civic Action Group

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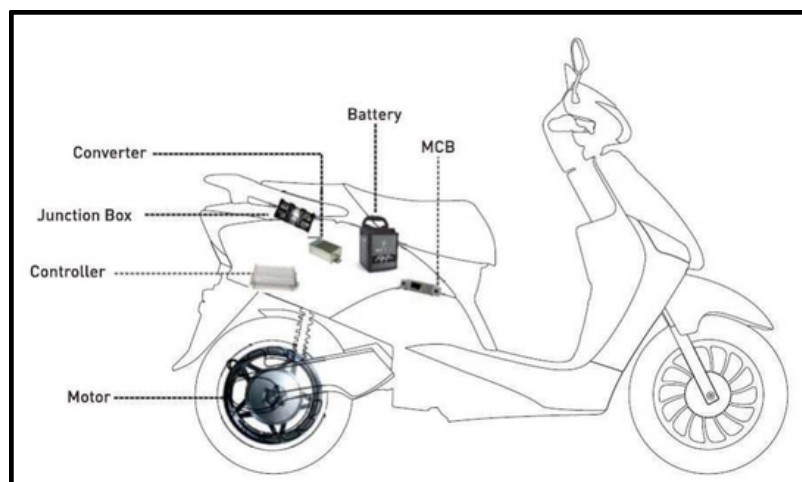
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No fuel costs, low maintenance costs and the offer of an eco-friendly drive have all been long promoted on various channels, and pulled me towards considering an EV. Another thing that made me consider EV are government initiatives such as exemption from registration fees and road tax to encourage purchase of EV two-wheelers. As of December 2023, the subsidy for upfront costs has been reduced for Tamil Nadu.



As a technology, an electric vehicle uses one electric motor powered by a battery to propel the vehicle forward. To understand better, just think of an electric fan. An electric fan needs electricity to run the motor which spins the blades to create airflow. The concept is the same - an electric motor is an electrical machine that converts electrical energy into mechanical energy. In an EV, the electricity is saved in the battery which supplies power to run the motor.

Anatomy of an Electric Vehicle - Two Wheeler | [ISIEINDIA](#)

For the past few years, I have been researching on selecting the right EV two-wheeler for my daily commute. I researched information on the internet, read articles, watched videos, and spoke with a few electric vehicle riders. This helped me to understand the costs and technology, including the vehicle's functioning. I also visited, and test-drove at a few EV two-wheeler showrooms to get a first-hand feel of the vehicle. test drive. Below are my insights on factors to consider before buying an electric two-wheeler.

What is the starting price of an electric two-wheeler? My first, obvious consideration was my budget. I was looking for an EV two-wheeler within a price range of Rs.75,000 - Rs.1,00,000. The Indian electric vehicles market has various vehicles at various price ranges starting from Rs.50,000, with various brands and models. This price includes the ex-showroom price and insurance premium.

How many KMs does an electric two-wheeler cover on a single charge? This was an important consideration if the vehicle was to meet my needs. My weekly commute is 100 km, and the majority of EV two-wheelers provide a driving range of 60 km - 180 km per charge. In the EV two-wheeler, the battery is the main component that determines the driving range. The range of an EV two-wheeler dictates how far you can travel on a single charge with the motor's power output determining how long a single charge is likely to last. . The battery capacity is usually measured in kilowatt-hours (kWh), and the motor's power output is typically given in kilowatts (kW). The higher the battery capacity, the longer the range. However, a higher capacity battery will have an increase in the cost of the EV two-wheeler. The final range of an EV two-wheeler depends on various additional factors such as driving conditions, and driving style. I therefore looked for a vehicle that optimised these factors to my needs.

(More purchase considerations in our next edition!)

SIMPLE MEASURES FOR ELECTRICITY CONSUMERS TO PARTICIPATE IN THE CIRCULAR ECONOMY - DO IT YOURSELF SERIES (PART- 8)

G.N.BHARATH RAM

The previous issue discussed how the R's (Repair and Reuse, Refurbish, Repurpose, Recycle) of the circular economy can be put into everyday use, concerning personal computers. This part explores the practice of R's in the purchase and use of music speakers, thus contributing to a circular economy.

7. Music Speakers:

A music speaker is a device that converts electrical signals into sound waves, allowing the listener to listen to any audio. A speaker is made from various materials, such as iron, aluminium, fabric, paper, ceramic, copper, and plastic. Its components include a supporting frame or basket, magnet, voice coil, cone or diaphragm, surround, spider and dust cap.

Though music speakers do not consume much electricity compared to many other electronic devices, they can generate a lot of e-waste, which is harmful to the environment and human health. They often contain materials and components that are difficult or costly to recycle, such as magnets, coils, and plastics.



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”

Simple measures for Electricity consumers to participate in the circular economy - Do It Yourself series (Part-8)



MUSIC SPEAKER- CIRCULAR CONSUMPTION



REFUSE

Avoid buying new speakers, if you do not need them or if they are not eco-friendly. Instead, look for ways to improve the sound quality or functionality of your existing speakers. Look for speakers that are made from sustainable or recycled materials such as bamboo, cork or plastic waste. Choose speakers that are energy-efficient and have high sound quality.



RECYCLE

If your speakers are beyond repair or use, drop them at an electronics recycling centre that accepts stereos and speakers. The centre will dismantle them, and sort the components as metals, plastics, wires, toxic waste etc. The waste then should be properly disposed off and the recovered useful materials can be reused for other electronics manufacturing.



REPURPOSE

Repurpose your old speakers into something new and useful. If your speakers still work, you can repurpose them into wireless speakers, internet radios, or boomboxes as simple DIY projects. For example, you can transform them into bookshelf sound systems, vintage radios, outdoor audio systems, or wireless audio devices. You can also upcycle them into creative items, such as tables, lamps, or planters.



RENTAL

At times of temporary needs, opt for rental speakers over buying new ones. You can lease or rent the speakers that you own to generate income.



REDUCE

Turn off your speakers when not in use, to prevent standby power loss. Adjust the volume and settings to optimize efficiency and avoid damage. For example, a small speaker may consume around 5-10 watts, while larger speakers consume 20-200 watts or more, depending on their size and power output. Volume has a direct impact on the power consumption of speakers. Here is how it works - when you turn up the volume on the amplifier, it feeds more electricity to the speakers. This causes the speaker cones to travel back and forth much further than before, which, in turn, makes the speaker play louder.



REUSE

Use your speakers for as long as possible. Repair or upgrade if they are broken or outdated and reuse them. Sell or give/donate to someone who needs them, or exchange them for something else. Consider buying second-hand speakers.

NEWS FROM TAMIL NADU

State aims to increase dependence on green energy says Industries Minister

At the inauguration of the two-day energy conference EnVision at the IIT Madras Research Park here, the Minister said, "Tamil Nadu is 50% green, with 40% solar energy and 50% wind energy. We are now pushing ourselves to go up to 75%. Green hydrogen is something that is extremely promising. Pump storage is a key part of the entire green hydrogen initiative that we are taking up in Tamil Nadu," he explained. According to him, the State was looking for 10 GW of initial deployment in the offshore wind energy sector. "People should have climate common sense," he said, adding that the State government was trying to inculcate "in every single mind, from school to college" the significance of climate change. The State had earmarked ₹1,000 crore as green fund to develop green products. He urged "the team here and the energy festival to come up with ideas to help the government and India reach its sustainable energy goal."

The energy conference EnVision, India's first energy festival, aims to set a roadmap of technologies towards a net-zero emission India. Over 500 delegates, including energy experts, industry leaders, policymakers, academia, researchers and students, are participating in the festival. President of the IITM RP and IITM Incubation Cell and RTBI Ashok Jhunjhunwala, said as the country's gross domestic product grew so would our greenhouse gas emissions.

SOURCE: [THE HINDU](#), 04 JANUARY 2024

NEWS FROM ACROSS THE COUNTRY

Install rooftop solar panels and get zero electricity bills: Delhi CM announces new policy

Installing rooftop solar panels may help you get 'zero' electricity bills, Delhi Chief Minister Arvind Kejriwal said Monday while announcing the Delhi Solar Policy 2024. Those who opt for the scheme will also earn around Rs 700-900 a month, he added.

Explaining the contours of the policy, a senior Delhi government official said, "The scheme is linked to power production. If, for example, you are using 400 units of power per month and you have installed a 2 kilowatt solar panel, which generates around 220 units of solar power. These 220 units will be adjusted against your consumption through net metering."

"This means that your net consumption will now be 180 units. Those who use under 200 units don't get a power bill in Delhi in any case. Apart from this, you will also be paid for the 220 units that you are generating at Rs 3 per unit," said the official, requesting anonymity. Ultimately, your power bill will depend on the consumption as well as the solar power generation. The policy was approved by the Cabinet a few days ago and has received the Lieutenant Governor's go-ahead.

Under the policy, the government will pay Rs 3 per unit if the solar plant is up to 3 kilowatts and Rs 2 per unit for plants between 3 and 5 kilowatts for five years.

Those who opt for the scheme will also be given a capital subsidy of Rs 2,000 per kW of installation up to a maximum of Rs 10,000 per consumer. This will be in addition to the subsidy given by the Centre, which is around Rs 16,000-18,000 per kW.

SOURCE: [THE INDIAN EXPRESS](#), 30 JANUARY 2024

CONSUMER FOCUS

The petitioner purchased a flat on the second floor of an apartment block with a total of 8 flats built over an area of 4000 sq. feet of land. In the car park assigned for the petitioner (amounting to 87 sq feet of his originally assigned Undivided Share of land), the land owner had added an unauthorised construction. The petitioner therefore filed a complaint against the land owner before the State Consumer Disputes Redressal Commission, Chennai to recover the covered car park. The petitioner received an ex parte order from the Commission in 2017. In 2022, the land owner and the petitioner entered into a Memorandum of Understanding (MoU) before the Tamil Nadu Mediation and Conciliation Centre, High Court, Madras. The land owner agreed to remove the unauthorised construction in the covered car parking area. The MoU states that the petitioner acquires the covered car parking area amounting to 87 Sq.ft of the undivided share of land. Following this, the petitioner demolished the unauthorised construction.

Subsequently, the petitioner applied for a new service connection under Low Tension (LT) Tariff 1A (domestic category) for the covered car park. The application was cancelled due to non-payment of registration charges. A second application was subsequently submitted with the required documents. The documents were (i) a sale deed of 87 sq. ft UDS (ii) the legal heir certificate (iii) a consent letter from the co-owner (iv) an LT application form (v) a self-declaration form along with the necessary charges.

Based on the application, the site was inspected by an Assistant Engineer (AE). On inspection, the AE found that the petitioner had only partially demolished the construction, which the AE reported, went against the mediation order. The petitioner had converted some of it into a covered car park area, retaining some portion of the construction. The AE also reported that proof documents submitted for the new service connection and the inspection site did not match, as by principles of UDS there is no demarcated boundary on the land for any individual. The AE therefore stated that the land proof submitted for getting the new service connection was invalid, and cancelled the application.

The petitioner approached the Consumer Grievance Redressal Forum (CGRF) claiming that TANGEDCO rejected his request without understanding the court order. On hearing both sides, CGRF in its order also stated that the petitioner's request cannot be sanctioned because the covered car parking is an undivided share of land. The UDS is commonly used by other owners/s in the apartment. As it has no assigned boundaries, a service connection cannot be sanctioned under any domestic category. Hence it ruled that the application rejected by TANGEDCO was valid.

Dissatisfied with the CCRF order, the petitioner approached the Electricity Ombudsman. The Ombudsman's findings on the day of the hearing were:

1. Based on the court order, the undivided share of land is jointly owned by the petitioner and other occupants in the building.
2. Whereas the covered car parking area means "only the roof is covered with concrete and sides are without concrete". Also, an area shall be specified for the owner/s to park/move their cars in the undivided share of land.
3. The petitioner asking for a new service connection under the domestic category (Tariff 1A) for his covered car parking area, is invalid, for the following reasons:
 - a. A covered car parking area is not the dwelling unit as per Low Tension Tariff 1A of Tariff Order 2023.
 - b. "Dwelling Unit" means an independent housing unit of residential purpose with separate facilities for living, and cooking and maybe a part of a building. Hence the application cannot be considered a dwelling unit because it is not a separate area for living.
 - c. Only one service connection is permissible in an independent floor/dwelling unit with permanent physical and electrical segregation. Permanent physical segregation means walls to segregate between the dwelling units.

Hence the application cannot be considered a dwelling unit because it is not a separate area for living. Based on the hearing, the Electricity Ombudsman dismissed the new service connection application.

WORLD NEWS

World's renewable energy capacity grew at record pace in 2023

Global renewable energy capacity grew by the fastest pace recorded in the last 20 years in 2023, which could put the world within reach of meeting a key climate target by the end of the decade, according to the International Energy Agency (IEA).

Additions to the world's renewable energy grew by 50% last year to 510 gigawatts (GW) in 2023, the 22nd year in a row that renewable capacity additions set a new record, according to figures from the IEA.

The "spectacular" growth offers a "real chance" of global governments meeting a pledge agreed at the Cop28 climate talks in November to triple renewable energy capacity by 2030 to significantly reduce consumption of fossil fuels, the IEA added.

Tripling global renewable energy by the end of the decade to help cut carbon emissions is one of five main climate targets designed to prevent runaway global heating, alongside doubling energy efficiency, cutting methane emissions, transitioning away from fossil fuels, and scaling up financing for emerging and developing economies.

Fatih Birol, the IEA's executive director, said: "It's excellent news to see the historical and spectacular growth of renewable energy." He added that while the report shows that global renewable capacity is already on course to increase by two-and-a-half times by 2030, it is not yet expected to reach the Cop28 goal of tripling renewables.

"We're not there, but we're not a million miles away," Birol said. "And governments have the tools needed to close the gap."

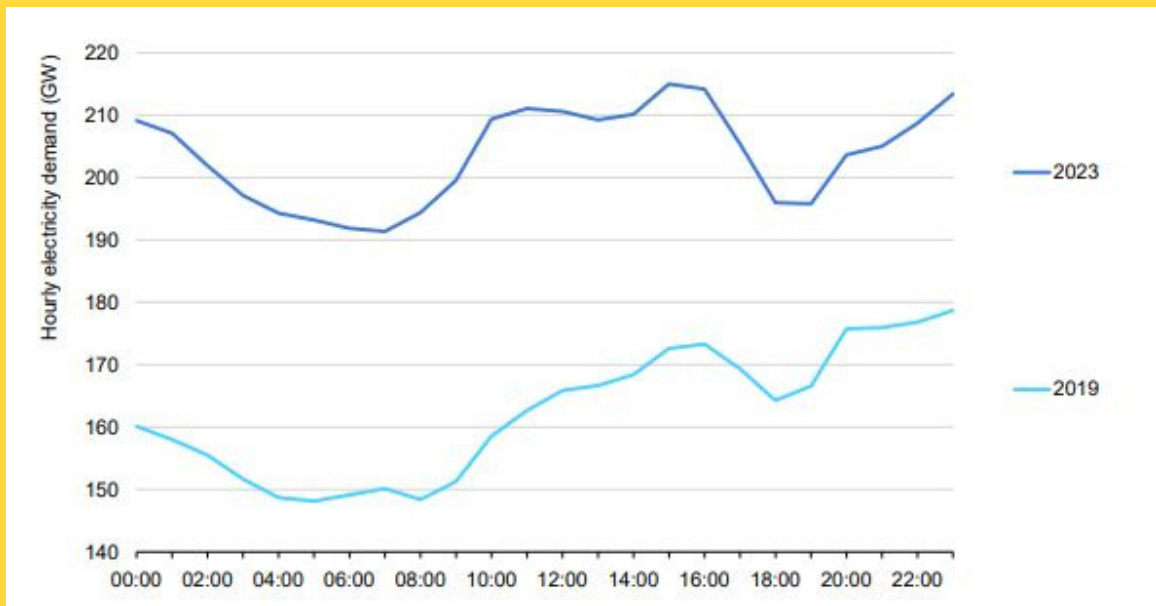
SOURCE: [THE GUARDIAN](#) , 11 JANUARY 2024



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- Renewables 2023, [IEA](#)
- Off-grid Renewable Energy Statistics 2023, [IRENA](#)
- Transforming Energy Demand, [WEE](#)
- January 2024 Newsletter, [Energy Efficiency Service Limited \(EESL\)](#).

ELECTRICITY DEMAND PROFILE ON A HIGH-TEMPERATURE DAY IN JUNE IN 2019 AND 2023



SOURCE: [IEA](#)

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