

EV

monthly updates
December 2020

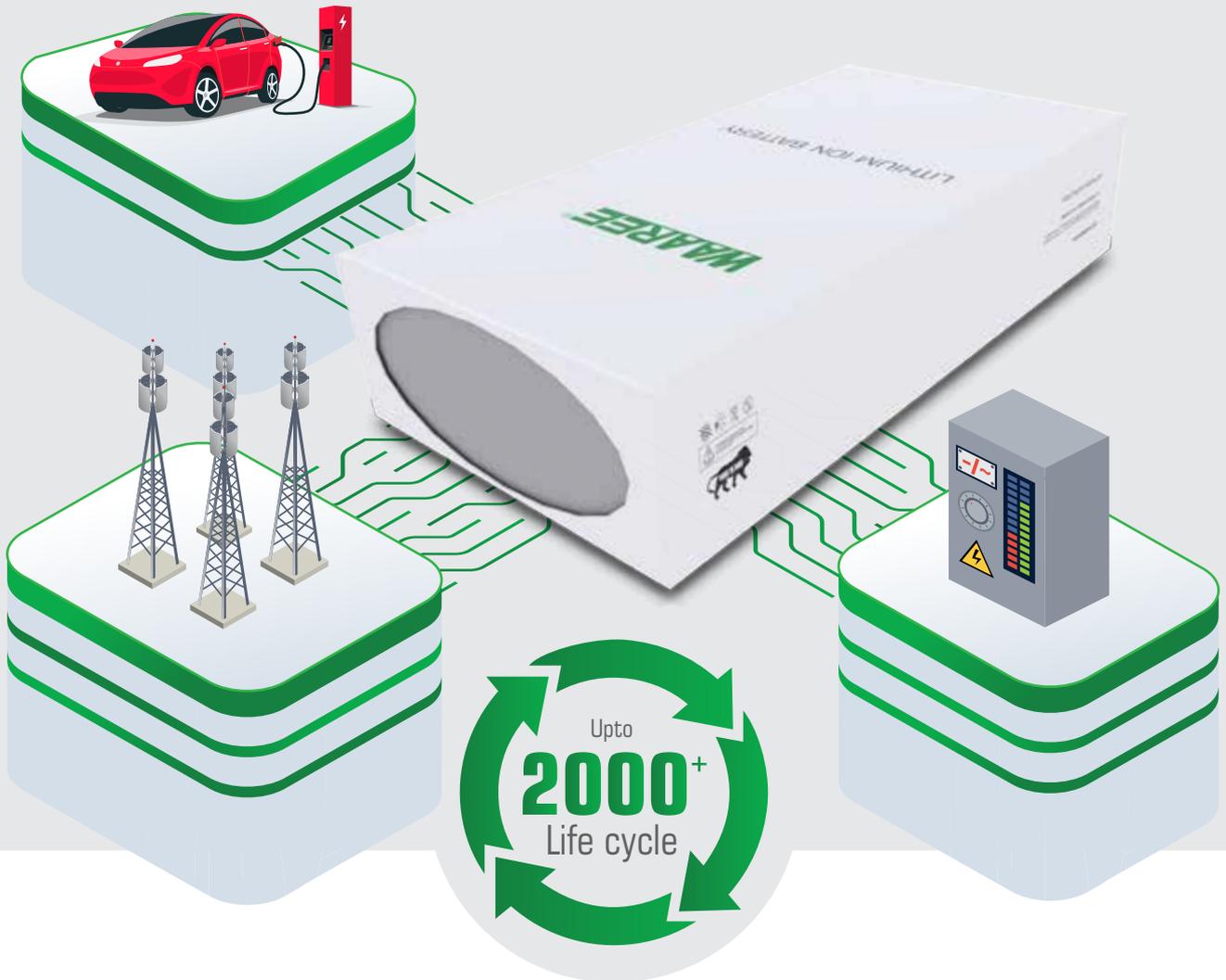


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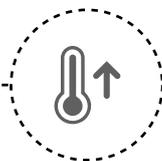


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Contents

1. New Product launches | 4
2. Tenders | 6
3. EV Sales trends | 7
4. Policies | 10
5. Charging Infrastructure | 11
6. Partnerships, JVs & Expansions | 13
7. Investments | 14
8. Other interesting reads | 14
9. Global market updates | 18

1. New Product Launches

Table 1.1: New Product Launches in December 2020

Product	Vehicle Type	Battery Specs	Other Specs	Price
Sonalika Tiger Electric	Tractor	<ul style="list-style-type: none"> Range – 120 km Battery – 25.5 kWh (Li-ion) Motor – 11 KW 	<ul style="list-style-type: none"> Charging time – 10 hrs; 4 hrs with a fast charging system Top speed – 24.93 km/h 	Rs. 599,000 (ex-showroom)
EeVe Atreo	2-wheeler	<ul style="list-style-type: none"> Range – 90-100 km Battery – 27ah (Lead acid) Motor – 250 W 	<ul style="list-style-type: none"> Charging time – 7-8 hrs Top speed – 25 km/h 	Rs. 64,900
EeVe Ahava	2-wheeler	<ul style="list-style-type: none"> Range – 60-70 km Battery – 27ah (Lead acid) Motor – 250 W 	<ul style="list-style-type: none"> Charging time – 7-8 hrs Top speed – 25 km/h 	Rs. 55,900
Smartron tbike flex	2-wheeler (Cargo)	<ul style="list-style-type: none"> Range – 75-120 km Battery – Li-ion 	<ul style="list-style-type: none"> Top speed – 25 km/h Payload – 40kgs 	Rs. 40,000

Hero Lectro launches F6i smart e-cycle with detachable battery at ₹49,000

Hero Lectro, a division of Hero Cycles, launched a smart electric cycle in India called 'F6i'. The 7-speed geared F6i e-bike is powered by lithium batteries and a rear hub motor. The e-bike is targeted at the young generation of cyclists and enthusiasts who ride for recreation, fun and adventure. The e-bike is equipped with an agile frame and a detachable battery that allows for a commute of up to 60 km in one go.

Smartron forays into B2B e-bike segment with tbike One Pro

Smartron India, the maker of smartphone and Internet of Things (IoT) products, unveiled its flagship crossover product, tbike One Pro, in strategic alliance with BLive, thereby foraying into the B2B electric bike segment. BLive is a travel tech platform offering experiential tours on electric bikes. tbike One Pro, powered by the AIOT (Artificial Intelligence of Things) platform tronX™, will be available across 14 cities in India.

Ather Energy launches its electric scooter 450X in 16 additional Indian cities

Electric two-wheeler startup Ather Energy launched its 450X scooter in 16 additional cities in the country in Mysore, Hubli, Jaipur, Indore, Panaji, Bhubaneswar, Nasik, Surat, Chandigarh, Vijayawada, Visakhapatnam, Guwahati, Nagpur, Noida, Lucknow and Siliguri. The startup already has presence in 11 locations across the country. So, by the first quarter of 2021, Ather 450X will be available across 27 cities in India.

Himadri Group forays into e-mobility space with launch of e-cycles range Motovolt Mobility

Kolkata-based Himadri Group forayed into the e-mobility space with the launch of its new venture, Motovolt Mobility and plans to invest Rs 1 Billion in it. The Company plans to start off the operations through the introduction of e-cycles, eventually launching four new products in the two-wheeler and three-wheeler segments.

Upcoming Launches

Tesla may launch Model 3 in India by June 2021

The US electric vehicle giant Tesla will enter India with its best-selling Model 3 by the end of first-quarter financial year 2021-22. Earlier, the company had opened bookings in 2016. Tesla Model 3, the most affordable model to date, was first rolled out in 2017 and now has emerged as the world's best selling all-electric car. It will be imported as a completely built unit with the capability of charging in 15 minutes.

Daimler plans to launch First Electric Truck in India

Daimler India Commercial Vehicle (DICV) is planning to launch India's first electric truck as per an update revealed by Union Minister, Nitin Gadkari. While electric buses are already operational here, electric trucks are still to make their debut. More details about Daimler's first electric truck for India will be revealed during the 'Future Mobility' event, which is scheduled to be held in 2021. If DICV can execute its plans in a timely manner, it could have the first-mover advantage in the electric truck segment. As of now, most of the leading automakers in the country such as Tata Motors, Mahindra & Mahindra, Ashok Leyland, and VE Commercial Vehicles are focused on electric buses in the CV segment.

Hyundai teases IONIQ 5 EV, launch in early 2021

Hyundai Motor Company released a teaser video for the upcoming IONIQ

5. It is the first dedicated EV in the IONIQ lineup to be launched in early 2021. The video release follows Hyundai's announcement, made in August 2020, that it will launch a dedicated BEV lineup brand IONIQ in its bid to become one of the world's top EV manufacturers. Under IONIQ, Hyundai will launch a range of EVs, including IONIQ 5, a midsize CUV in early 2021; IONIQ 6, a sedan, and IONIQ 7, a large SUV, will follow.

Made-in-India electric coupe Pravaig Extinction Mk1: 504 km range, launch in 2021

Pravaig Dynamics, an Indian electric car company, will launch its two-door coupe-style electric car with four seats Extinction Mk1 in 2021. The all-electric car will be available on lease for commercial fleet operators. The EV will first be launched in Delhi and Bengaluru before the company expands to other metropolitan cities eventually. The annual production of the car will be limited to 2,500 units. The Company claims that the car will deliver 504 km of range on one full charge with a 0-80 percent charging capability in 30 minutes. The power output is slated to be about 202 hp and 2,400 Nm of torque. It claims a top speed of 196 km/h and a 0-100 sprint time of 5.4 seconds.

2. Tenders

Table 2.2: Tenders in December 2020

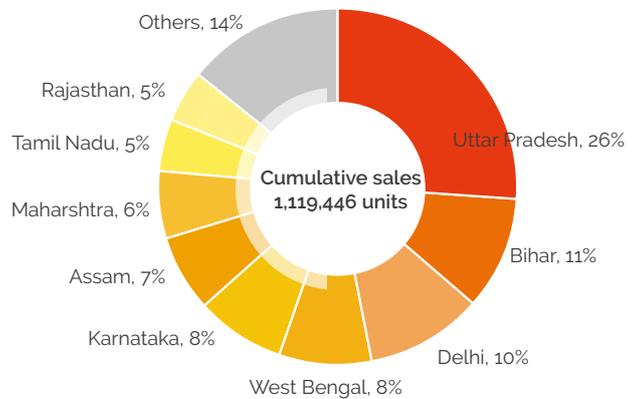
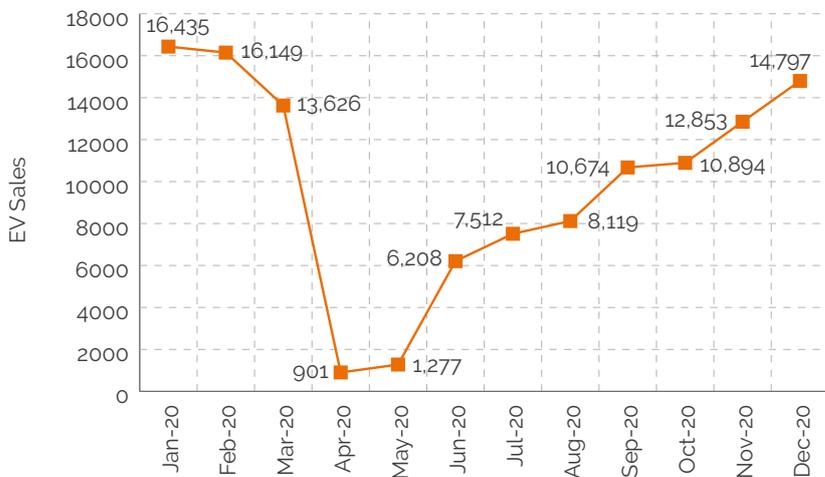
Tender name	Tender Authority	Bid submission End date	Tender value
Procurement of 500 Electric Cars with 3 years Standard warranty (200 Nos. of 4-wheeler Sedan E-Cars range equal to or more than 180 KMs and 300 Nos. of 4-wheeler E-Cars with less than 4M Length & range equal to or more than 250 KMs)- Design, Manufacture, On site Supply and Maintenance Support for Electric Cars Pan India	EESL	05-Feb-2021	Rs. 13,200,000
Empanelment of travel firms/ Agencies/ fleet operators for supply of environmentally friendly (Electric Vehicles Only) cars on monthly hire basis for official use in the Telangana State Government Departments & Corporations	Telangana State Renewable Energy Development Corporation Ltd. (TSREDCO)	16-Jan-2021	

Tender name	Tender Authority	Bid submission End date	Tender value
Selection of Bus Operator for Supply, Operation and Maintenance of 100 AC Electric Buses on Gross Cost Contract(GCC) basis in the cities of Guwahati, Silchar and Jorhat in the State of Assam	Assam State Transport Corporation	6-Jan-2021	
Selection Of Bus Operator For Supply, Operation And Maintenance Of 300 Air Conditioned Fully Built Low Floor Electric Buses Of 12 Mtrs. Length Under Opex Model On PPP (BOOT) Basis	Delhi Transport Corporation (DTC)	28-Dec-2020	

3. EV Sales Trends

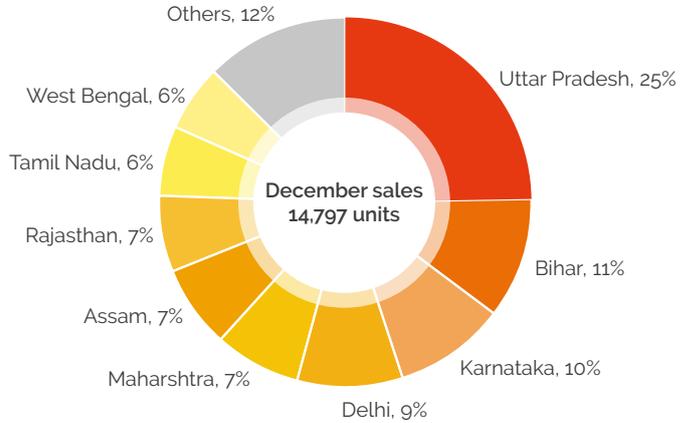
The December sales of EVs have surged by 15% from previous month's sales to register 14,797 units. The cumulative sales of registered EVs from Jan-Dec 2020 is about 1,19,446 units. In the region-wise category, Uttar Pradesh has the maximum registered EV sales (26%) in India among all the states/ UTs, followed by both Bihar (10%) and Delhi (10%) with a slight difference in number of units.

Fig 3.1: Registered EV sales in India (Jan –Dec 2020)



Source: Vahan Dashboard. JMK Research
 Note: Sales figure represent EVs registered across 1261 RTOs in 33 states/ UTs.

Fig 3.2: (State/ UT) Region-wise registered EV sales - December 2020

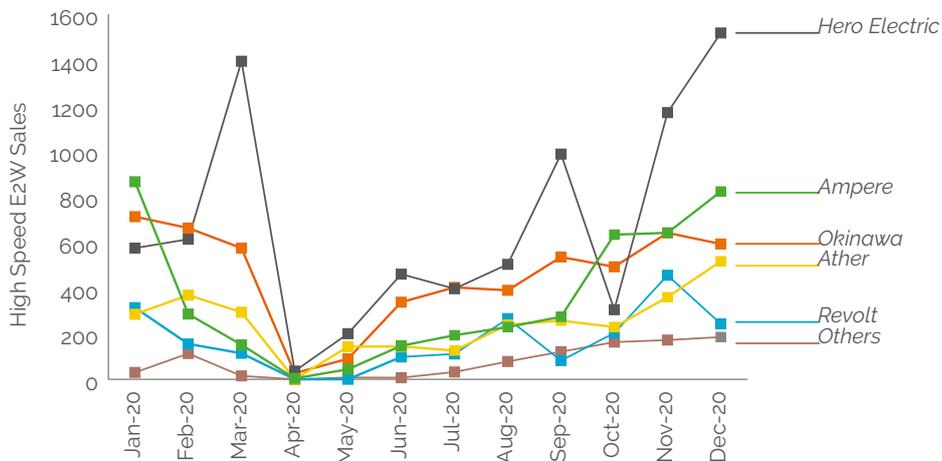


Source: Vahan Dashboard, JMK Research
 Note: Sales figure represent EVs registered across 1261 RTOs in 33 states/ UTs.

High-Speed Electric Two Wheeler (E2W)

In the high-speed (HS) E2W segment, the cumulative sales of Ampere, Ather, Hero Electric, Okinawa and Revolt in December 2020 is 3,694 units, increasing 13% from the corresponding November sales mark. With respect to December sales, Hero Electric has taken the lead, followed by Ampere and Okinawa in the HS-E2W segment.

Fig 3.3: Player-wise high-speed E2W sales trend

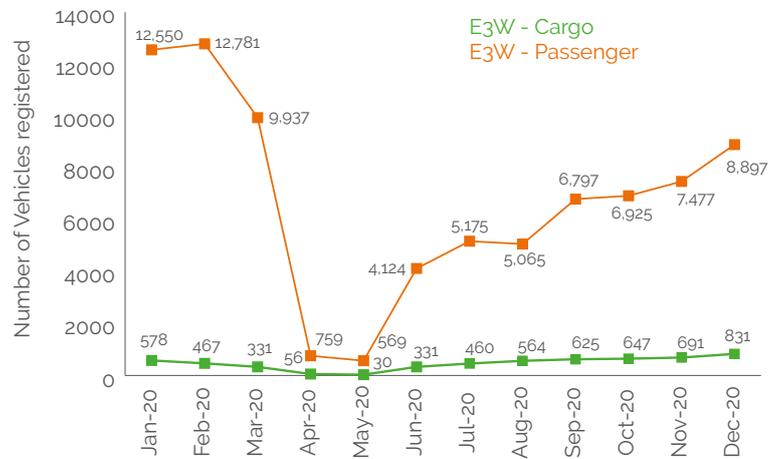


Source: Vahan Dashboard, JMK Research
 Note: Sales figure are for only high range E2W models with speed higher than 25kmph. Sales figure represent E2W's registered across 1261 RTOs in 33 states/ UTs.

Electric Three Wheelers (E3W)

The combined sales of both passenger and goods-type (registered) E3Ws in December have grown by about 19% over November sales to reach 9,728 units. The passenger-type E3W accounted for 91.5% of the total E3W sales for December. The cumulative sales of cargo and passenger (registered) E3Ws during Jan-Dec 2020 is 86,667 units.

Fig 3.4: Sales trend of cargo E3W and passenger E3W



Source: Vahan Dashboard, JMK Research

Note: Sales figure represent E3Ws registered across 1261 RTOs in 33 states/ UTs.

4. Policies and Regulations

Karnataka approves EV manufacturing projects of ₹23,000 crore

The Karnataka government approved investments of ₹22,419 crore of three different proposals involving EV and lithium-ion battery manufacturing that have the potential to create nearly 5,000 new jobs. Two proposals of Elest Private Limited of ₹14,255 crore and ₹6,339 crore and ₹1,825 crore project by Hyunet Private Limited were cleared by the chief minister -led State High Level Clearance Committee (SHLCC). The state is trying to get more investments into renewable and sustainable energy related projects and build Karnataka as an EV hub and has also launched a policy to this effect.

AP lays out plan to introduce 10 lakh EVs by 2024

The Andhra Pradesh state government laid out a plan for the introduction 1 Million EVs by 2024 attracting an investment of Rs 300 Billion and creating 60,000 jobs in the EV manufacturing sector. The government presented these plans on EVs at a high-level (virtual) meeting convened by Niti Aayog. In addition, the government said that all government vehicles in the state will be converted to EVs by 2024 and all the 11,000-odd buses of the public sector AP State Road Transport Corporation will be converted into EVs by the year 2029. The plan also included installation of 0.1 Million EV charging stations by 2024.

RERC fixes Rs 6/unit power tariff for EV charging stations

Rajasthan Electricity Regulatory Commission (RERC) has fixed the tariff for charging stations at Rs 6 per unit by creating a new category of consumer, thereby paving the way for the growth of EVs. RERC has also decided to provide relaxation in permanent fee from Rs 135 to Rs 40 per month for these stations. Further, Under the 'Time of Day' method, 15 % relaxation will be provided to owners, who will charge their EV between 11 pm and 6 am.

5. Charging Infrastructure

Delhi municipal corporation plan e-charging stations at every 3km

Municipal corporations in Delhi decided to set up a large number of electric charging stations in the city by December, 2021. The target is to provide at least one station in an area of 3 square km so that people owning EVs are incentivised. South Delhi Municipal Corporation has identified 75 locations for creating charging infrastructure, the north corporation has finalised 127 such charging points and the east corporation has shortlisted 93 locations for creating charging stations. New Delhi Municipal Council has already established 55 e-charging stations and it plans to energise 45 new stations soon.

MG Motor, Tata Power install 60 kW Superfast EV charging station in Coimbatore

MG Motor and Tata Power installed Coimbatore's first 60 kW superfast public EV charging station at the MG Dealership. The initiative is part of MG's recent partnership with Tata Power to deploy 50 kW and 60 kW DC Superfast charging stations across the country. The latest public EV charging station is available to all vehicles compatible with CCS fast-charging standard and can charge the ZS EV up to 80% in 50 minutes.

EV COSMOS ties up with ChargeNET SriLanka for 500 EV charging stations in India

Indian Electric Vehicle (EV) solutions firm EV COSMOS tied up with ChargeNET Sri Lanka, a group company of Codegen International of UK, for providing EV charging solutions for customers in India. As per the tie-up, ChargeNet, that operates a manufacturing facility in Sri Lanka, will set up 500 EV charging stations in India with 50-Megawatt capacity over a period of two years. The Company will provide IOT-enabled fast charging solutions in strategic locations in cities, highways, and hotels where EVs shall be charged in 15-30 minutes.

VoltUp partners with HPCL for battery swapping centres

Electric two and three-wheeler battery swapping solutions start-up VoltUp entered into partnership with Hindustan Petroleum Corporation Ltd (HPCL) for opening battery swapping centres. The partnership is looking to open 50 battery swapping solutions centres across India by June, 2021. The first two centres have already been unveiled in Jaipur. The partnership

resonates with VoltUp's business model of instant swap on pay as you go basis and also addressing the challenge of higher upfront cost of EVs.

Madhya Pradesh Exempts EVs and E-Rickshaw Charging Stations from Tariff Hike

The Madhya Pradesh Electricity Regulatory Commission (MPERC) determined tariffs for low voltage (LV), high voltage (HV), and extra-high voltage (EHV) consumers in the state in its retail supply tariff order. As per the order, EVs and electric rickshaw charging stations are exempted from the tariff hike. The new tariffs will be applicable starting December 26, 2020, until further notice or the retail supply tariff order is announced.

Sun Mobility to set up 100 EV battery swapping stations across Bengaluru

Electric vehicle solutions and services startup Sun Mobility announced plans of setting up 100 EV battery swapping stations across Bengaluru by December 2021, with the aim of pushing adoption of electric mobility for both passenger transport and logistics applications. The company inaugurated four such 'Swap Points' in four localities of Bengaluru in partnership with state-run Indian Oil Corporation.

Bengaluru Gets Its First Battery Swapping Network for Electric Vehicles

Karnataka has launched a unique EV battery swapping network in its capital Bengaluru, addressing one of the key concerns of potential users of the cleaner technology - fast discharge and lack of supporting infrastructure. This swapping network has been set up by Sun Mobility and is meant to ensure clean last-mile connectivity for Bengaluru.

Ola scouting for sites in India, Europe to build network of charging stations: Report

Ride-hailing platform Ola is said (as per unconfirmed reports) to be scouting for multiple sites across major cities in India and several locations in Europe to build a network of charging stations for electric two-wheelers. These setups, which will be strategically located, can be used by Ola's customers to rapidly charge their electric two-wheelers.

6. Partnerships, JVs & Expansions

Hero Electric ties up with startup eBikeGO

Hero Electric tied up with startup eBikeGO (offering smart IoT-powered mobility solutions and currently providing bikes on subscription) to supply over 1,000 bikes to transform last-mile deliveries. The first batch of 120 has already been delivered to eBikeGO and the rest will be procured through FY2021. As part of the tie-up, Hero Electric will also provide service support to eBikeGO through its over 600 pan-India dealer network along with a dedicated relationship manager for maximum uptime.

MG Motor ties up with TES-AMM India for recycling ZS EV batteries

MG Motor India partnered with TES-AMM, a global e-waste recycling and end-to-end service provider, for the sustainable recycling of ZS EV batteries. The partnership ensures that batteries not only re-enter the value chain but also are recycled while following the most eco-friendly protocols.

Omega Seiki ties up with CK Motors for electric three-wheeler sales in South India

Omega Seiki Mobility entered into partnership with CK Motors for sales and services of its entire electric three-wheeler range in South India covering Tamil Nadu, Kerala, Karnataka, and Union Territory of Puducherry. The first phase will witness opening of a total 13 showrooms in major cities of Tamil Nadu, Karnataka, Puducherry, and Kerala such as Chennai, Coimbatore, Madurai, Bengaluru, Cuddalore, Tiruppur, Mangalore, Hubli, Belgaum, Mysore, Davanagere, and Manarcaud. This will be followed by 31 showrooms in phase-2 and 40 in phase-3. The electric three-wheeler range of Omega Seiki Mobility includes Rage+ and Rage for the B2B cargo segment while the electric passenger vehicle range includes Sun-Ri, Stream, and Ride.

7. Investments

Table 7.1: Investments in December 2020

Date	Company name	Company type	Deal type	Investor(s)	Deal value (in US\$ Mn)	Details
Dec-20	The ePlane Company	Electric Plane OEM	Equity	Speciale Invest, CIIE, CO, FirstCheque, Java Capital, and ShareChat co-founder Farid Ahsan	Undisclosed	Aerial mobility startup ePlane gets seed funding from VC firms, ShareChat exec

8. Other Interesting Reads

[SUN Mobility rides on Microsoft Azure to help build EV ecosystem](#)

SUN Mobility is using Microsoft's Azure Cloud as well as other solutions in developing Cloud-connected swappable batteries. The batteries as well as the swap stations are connected to the Cloud using Microsoft Azure and numerous built-in solutions like Azure IoT Hub, Azure Data Factory, CosmosDB, Azure Databricks, among others, that transmit battery performance telemetrics back to SUN Mobility. With this data, SUN Mobility understands battery utilisation, most frequented routes, and peak hours.

[Mahindra Logistics to soon deploy electric vehicles for last-mile delivery](#)

Mahindra Logistics, one of the largest third-party logistics (3PL) service providers, specializing in supply chain management and enterprise mobility, is planning to deploy EVs for last-mile delivery. The plan comes on the heels of online retailer Amazon India's move to deploy EVs for last-mile delivery. The company is reportedly in touch with Mahindra Electric and Kinetic Green for vehicle supplies. Mahindra Logistics already uses EVs for its people transport solutions in some parts of the Country.

Deliveries of fastest electric motorcycle start

One Electric announced the start of deliveries of their electric motorcycle, KRIDN, in Hyderabad and Bengaluru through their distribution partners. Deliveries to Tamil Nadu and Kerala will commence in January 2021. Dealer feedback from test rides shows that the customers are surprised at the excellent performance in speed and power coming from an electric motorcycle. Customers are also happy about riding a powerful motorcycle without gears.

Going green, Swiggy and Zomato to move 10% of delivery fleet to EVs in 2021

India's two of the biggest food-delivery startups Swiggy and Zomato plan to switch at least 10 percent of their delivery fleets, mostly two-wheelers, to electric in 2021 and are in talks with electric scooter and bike aggregators like Zipp, Spinny and eBikeGo. The earlier plan was to hit this target by March 2020. However, COVID disrupted the plan and the switch should now happen towards the second half of 2021. The move comes amid the government's push for EVs, growth of support infrastructure, and the expected cost benefits in the long run.

Electric vehicle market in India expected to hit 63 lakh units per annum mark by 2027: IESA

The EV market is expected to grow at CAGR of 44 percent between 2020-2027 and is expected to hit 6.34-million-unit annual sales by 2027, according to a report by India Energy Storage Alliance (IESA). The report, covering the present scenario and forecast of EV, EV batteries, and the public charging infrastructure market in the country, also states that the demand for the batteries is going to rise substantially between 2020-2027.

Ola to invest INR 2,400 Cr for electric scooter manufacturing plant in Tamil Nadu

Ola signed a memorandum of understanding (MoU) with the Tamil Nadu government to set up what it claims to be the 'world's largest scooter manufacturing facility in the state. The Company will invest about USD 327 million (INR 2,400 Crore) in setting up the factory which would result in the creation of almost 10,000 jobs. The factory will have an initial production capacity of 2 million electric vehicles per annum and will produce Ola's upcoming range of two-wheeler products starting with Ola's electric scooter. The new factory would also cater to customers in Europe, Asia, and Latin American among other markets, the company said in a statement.

Electric two-wheeler domestic sales expected to decline 15-17% in FY21: Icra

Electric two-wheeler domestic sales are expected to shrink 15-17 per cent year-on-year in FY21 amid an evolving pandemic situation, persisting health concerns coupled with economic uncertainties as per ratings agency ICRA. In the first half of FY21, the actual two-wheeler (2W) wholesale sales volumes were 38 per cent lower on a year-on-year (y-o-y) basis.

EV and ICE vehicle price gap to close soon as battery cost is to be about USD100/kWh by 2023: BNEF Report

As per the findings of BloombergNEF (BNEF), the price of battery (which goes into the production of EVs) has been declining steadily, and now it is at around USD 137/kWh, a fall of 89% from USD 1,100 /kWh in 2010 and it will continue to fall further to USD 101/kWh by 2023. The battery pack of an electric vehicle accounts for about 40%-50% of its cost and this cost is the largest single factor in the price differential between EVs and internal combustion engine (ICE) vehicles. The above findings indicate that at this price for the battery pack, the automakers should be able to produce and sell mass-market EVs at the same price as comparable ICE vehicles at least in some markets.

Uber announces launch of 3,000 electric two-wheeler, three-wheelers and cabs in 2021

Uber announced plans to switch to fully zero-emission platform by 2040 globally and in India. It has committed to scaling up to 3,000 EVs across two-wheelers, three-wheelers, and cabs by the end of 2021.

DTC looks at private players to boost its electric bus fleet

In a first, Delhi Transport Corporation (DTC), which hasn't procured buses in a decade, will be roping in private players to augment its fleet with electric buses. The earlier tenders floated in June couldn't fructify, so this time, DTC floated fresh tender with modified clauses to attract more probable operators. DTC has floated tenders for selecting an operator for procurement, operation and maintenance of 300 electric buses, which will be paid operating cost per kilometre under 'operating expenses' (OPEX) model. DTC plans to induct a total 1,000 electric buses in its fleet, apart from 1,250 CNG-run buses.

Bounce to add 4,000 electric scooters to its fleet by February

E-scooter sharing player Bounce announced plans of adding 4,000 more

e-scooters to its fleet by February. Currently, EVs form 50% of the Bounce fleet in Bengaluru and Hyderabad. Further, the Company intends to transition to a 100% EV fleet by the third quarter of 2022.

Tata Motors delivers 26 e-buses to BEST

Tata Motors delivered 26 Tata Ultra Urban AC electric buses to Brihanmumbai Electric Supply and Transport (BEST) as part of the BEST order for 340 electric buses under the government of India's FAME II initiative. In addition, the Company will be building, deploying, maintaining, and operating the complete charging infrastructure along with the buses across the four Mumbai depots of -Worli, Malvani, Backbay, and Shivaji Nagar.

Nexon EV crosses 2000 units sales, says Tata Motors

Tata Motors announced the sale of more than 2,000 units of its electric SUV Nexon in just 10 months since its launch. The Company rolled out its 1,000th Nexon EV in August, 2020, selling the rest 1,200 units in just 3 months from September to November, 2020. This helped the Company gaining 74% market share in the electric passenger vehicle segment.

Etrio launches leasing plans for electric cargo 3-wheeler Touro

Etrio, the Hyderabad-based EV start-up, announced the availability of its recently launched electric cargo three-wheeler Touro on lease rentals, starting at Rs. 7,000 per month. The leasing plan 'E-Lease' will be available for select large corporate customers to enable mass deployment of the vehicles. The plan, initially available for Touro Mini in Delhi, Hyderabad, and Bengaluru, will be extended to cover Touro Max in other major cities over the next few months. The lease, to be provided for a minimum order quantity of 20 units, will be available for 18 to 42 months.

Amazon in talks with EV makers to procure customised delivery vehicles

E-commerce giant Amazon is in talks with a slew of domestic EV manufacturers, including Mahindra Electric and Kinetic Green, to procure customised EVs through its logistics partners for last-mile delivery. There are few start-ups that are also in talks with Amazon for the supply of EVs including Bengaluru-based Altigreen, Hyderabad's E-trio and Gayam Motor Works, and Delhi-based EV aggregator SmartE. The ecommerce major is looking for EVs that can carry a payload of 500-600 kilograms, have a range of about 150 km and a top speed of around 50 km per hour.

9. Global Market Updates

China to cut subsidies for new energy vehicles by a fifth next year

China will cut subsidies by a fifth in 2021 on new energy vehicles (NEV) such as electric cars while the subsidies on NEVs for public transport, including buses and taxis will be reduced by just 10%. China will also beef up regulations on new auto investment and manufacturing factories in a move to prevent overcapacity in the auto sector.

Tesla could deliver one million cars by 2022 on 'eye-popping demand' from China, Wedbush says

Tesla is projected to deliver one million vehicles in 2022 owing to robust deliveries in the fourth quarter partly driven by pent-up demand from China. China is expected to represent 40% of Tesla's car sales by 2022 as the country is the major contributor to Tesla's demand growth story. Panasonic to produce Tesla new '4680' battery cells from 2021: Report Tesla Inc supplier Panasonic will build a prototype production line for the Tesla 4680 battery cells at its existing facilities as early as 2021. The 4680 cells are expected to have 5X the energy density and 6X more power than Tesla's existing batteries. Tesla's new cells are also predicted to cost 56% less to produce per kWh. The new cells are being produced only at a pilot plant in Fremont, USA.

China's Yahua agrees five-year deal to supply lithium to Tesla

Sichuan Yahua Industrial Group Co Ltd., based in southwest China's Sichuan province, signed a deal to supply battery-grade lithium hydroxide to U.S. electric vehicle manufacturer Tesla Inc till 2025. The total value of the contract is pegged at \$630-880 million over 2021-25 as per the Company's filing to the Shenzhen Stock Exchange. Tesla, which started delivering the first vehicles from its gigafactory in Shanghai in December 2019, already sources lithium - a key ingredient in EV batteries - from world's leading producer of this commodity, China's Ganfeng Lithium.

Fiat greenlights electric car production in Poland

Global auto giant Fiat Chrysler (FCA) Group announced plans of upgrading its plant in southern Poland to start producing electric cars by mid-2022. FCA's Jeep, Fiat and Alfa Romeo models will be manufactured using the most advanced drive systems, including all-electric drive at the Tychy plant in Poland's southern Silesia coal basin.

German luxury carmaker BMW is planning to step up its production of electric vehicles, building a quarter of a million more electric cars than originally planned between 2021-23. The Company wants every fifth car it sells to be powered by an electric engine by 2023 compared to about 8% in 2020.

Record Electric Vehicle Sales in China

The overall Chinese auto market though slowly picking up (+12% year-over-year in November 2020), plugin vehicles are already on the fast lane, growing by 138% year-over-year (YoY) to a record 198,000 units. The plugin hybrids (PHEVs) grew faster than full battery electric vehicles (BEVs) — +164% versus +134% though BEVs still own 80% of the plugin vehicle (PEV) market.

LG and Magna announce billion-dollar joint venture in electric car gear

South Korea-based LG Electronics Inc and automotive supplier Magna International Inc entered into a joint venture (JV) for the manufacture of key components for electric cars. The JV, tentatively called LG Magna e-Powertrain and valued at \$1 billion, will manufacture e-motors, inverters, and onboard chargers.

Toyota to launch two-seater ultracompact EV in 2021

Toyota Motor will launch a new two-seater ultra-compact EV in 2021 with an initial sales target of around 100 vehicles for business clients and local governments. The battery-powered car, expected to be priced around 1.6 million to 1.7 million yen excluding subsidies, will run 100 km per-charge.

BYD to build new EV battery factory in China's Bengbu

EV maker BYD will build a new EV battery factory in the eastern Chinese city of Bengbu. The factory, requiring a total investment of 6 billion yuan (\$916.55 million), will have an annual manufacturing capacity of 20-gigawatt hours (GWh).

Mitsubishi Motors to focus on hybrids in SE Asia, part of regional 'electrification' push

Japan's Mitsubishi Motors Corp sees hybrid models in Southeast Asia as a key part of its electrification strategy to stay competitive in the region and considers conventional gasoline-electric vehicles and plug-in electric hybrids a more realistic choice for now. The Company will hold a ceremony in Thailand to officially start local production of a plug-in hybrid version of the Outlander sport-utility vehicle (SUV). Mitsubishi intended to produce Outlander plug-ins in Thailand, taking advantage of incentives for hybrid

technology, with key drivetrain systems and batteries shipped in from Japan, and planned to add more hybrid models to its line-ups in Southeast Asia. The use of gasoline-electric hybrid technologies to gradually replace pure gasoline-fueled cars is an emerging trend in countries such as Japan and China.

Hyundai to end domestic sales of Kona EVs after recalls: Reports

As per some unconfirmed local media sources, South Korea's Hyundai Motor Co will end domestic sales of its best-selling EV, the Kona EV, after a series of fires and faulty braking systems prompted mass recalls. In October, Hyundai recalled 25,564 Kona EVs in South Korea due to the risk of short circuit possibly caused by faulty manufacturing of its high-voltage battery cells. The Company has also recalled 50,864 Kona EV and Nexo fuel-cell vehicles in South Korea due to faulty electronic braking systems.

Aptera unveils three-wheeled solar electric car that "requires no charging"

APTERA, a US-based startup, has developed a solar and electric vehicle with a range of up to 1,000 miles on full battery, which it claims most drivers won't need to charge. With this range, the Company claims that drivers would be able to complete average journeys with no need to stop for more power at charging stations. Since the average American drives 29 miles per day, so, depending on where the owners live and how much they drive, they "may never need to charge Aptera at all". The car can be fully charged via a charging station or cord as well as through solar energy from the sun during daytime. The car, planned to go into production in 2021, can go from zero to 60 miles per hour (mph) in 3.5 seconds, with a top speed of 110 mph.

Hybrids are quietly selling faster than fully electric cars: Report

Hybrid cars are seeing a quiet resurgence as the boom in electric vehicles spurs automakers to give the older, cheaper technology a second look. The EV market risks becoming a crowded one, with more than 500 EV models expected to be available globally by 2022. While hybrids, which blend the power of a gasoline engine with electric motors and batteries, are now more than two decades old, they're still seeing demand. Ford Motor Co. and Toyota Motor Corp. are among those releasing fresh hybrid versions and investing anew in their hybrid component supply chains. Hybrid sales in the U.S. rose 17% in 2019 from 2018; in the European Union they rose 22% over the same period as the region braces for tightening emissions regulations. In China, Japanese brands — which claim the biggest share of the hybrid market globally — sold about 30% more hybrids, making the

segment one of the market's fastest growing. Electric-car sales by contrast increased 6% in 2019 from 2018, well down on previous years' double-digit growth. Hybrid sales are projected to keep growing until they peak in 2027 with a market value of \$792 billion, according to IDTechEx

Volvo Trucks Introduces the Volvo VNR Electric Model in the U.S., Canada

Volvo Trucks North America announced the commercial introduction of its zero tailpipe emission, battery-operated Class 8 Volvo VNR Electric truck to the North American market. This all-electric truck, with a scheduled production start of early 2021, will be fully integrated into the production and manufacturing processes at the New River Valley assembly plant in Dublin, Virginia.

Peugeot-Citroen to offer electric versions of all vans

PSA, the French automaker, announced plans of offering all-electric versions of all its van models by the end of 2021 owing to the Company's decision of offering electric versions for its entire line-up by 2025. The four PSA brands, Peugeot, Citroen, Opel and Vauxhall already launched the electric versions of their medium van models (D-Van) and large van (E-Van) in 2020 and the launch of all-electric versions of their compact van (B-Van) and associated passenger cars in 2021 will complete the entire line-up.

Hyundai announces dedicated EV platform, new-age cars to boast 500km range

Hyundai Motor Group announced a dedicated EV platform called E-GMP serving as the foundation on which the Company's future battery-operated vehicles will be rolled out. A number of products including Ioniq 5 and a yet-to-be-revealed product from Kia Motor Corporation will be based on this product starting 2021 onwards. As per the Company, a BEV (Battery Electric Vehicle) based on E-GMP is capable of attaining maximum range of over 500km with a fully charged battery.

Series production of ENYAQ iV electric SUV begins at Skoda Mladá Boleslav plant

Skoda Auto announced the series production of its 100% battery-electric SUV, ENYAQ iV, at its main plant in Mladá Boleslav, Czech Republic. This SUV is the first Skoda series production model based on the Volkswagen Group's Modular Electrification Toolkit (MEB) platform. The Company will produce up to 350 units of ENYAQ iV every day alongside the Octavia and the Karoq series.



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