

## INDIAN ELECTRIC VEHICLE INDUSTRY

Electric Mobility Promotion Scheme 2024 - A timely move to keep the electrification pace intact

**MARCH 2024** 



## Highlights





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ICRA expects the penetration levels of e-2w and e-3w (excluding erickshaws) to reach 6-8% and 14-16% respectively in FY2025.

The Government's announcement to offer incentives under a new scheme for e-2Ws and e-3Ws will continue to provide a disruption-free environment for e-2W OEMs, just before the FAME-II scheme was about to end.



On March 13, 2024, the Ministry of Heavy Industries announced the Electric Mobility Promotion Scheme 2024 with a total outlay of Rs. 500 crore to support adoption of e-2Ws and e-3Ws (including e-rickshaws, e-carts and L5 category vehicles) for a period of four months from April 1, 2024 to July 31, 2024. Around two-thirds of the outlay is to be earmarked for e-2Ws. The subsidy for e-2Ws has been cut to Rs. 5,000/kWh from Rs. 10,000/kWh earlier with a cap of Rs. 10,000 per vehicle for e-2W (from 15% of ex-showroom price earlier), Rs. 25,000 for e-rickshaw/ e-cart and at Rs. 50,000 for L5 category e-3Ws, respectively.

The announcement by the Government of India of the Electric Mobility Promotion Scheme 2024 is a timely move to support adoption of electric vehicles in the country, with the FAME-II subsidy expected to see a sunset on March 31, 2024. However, with reduction in the quantum of subsidy being offered on per vehicle basis vis-à-vis the existing FAME-II guidelines, ICRA estimates that the initial purchase cost of an e-2W would increase as OEMs will have potentially have to take price hikes, the extent of which remains to be seen.

In ICRA's estimates, the pay-back period could get extended to 5.5 years vis-à-vis 5 years (under FAME-II), if the e-2W makers were to completely pass on the subsidy reduction amount to the consumers in the form of price hikes. However, the Total Cost of Ownership (TCO) for e-2W still continues to be favourable vis-à-vis ICE vehicles (30-35% cheaper), aided by substantial savings on running costs.



In ICRA's view, the reduction in the subsidy benefit is a short-term impediment and may impact demand to some extent. The OEMs will continue to offer competitive products by leveraging their cost structure through localisation of key components and value engineering capabilities. In addition, softening in battery cell prices (which accounts for 35-40% of vehicle cost) will also help offset the impact of lower subsidies to some extent.



Further, the long-term potential for e-2W segment remains favourable aided by a) improving cost of ownership vis-à-vis ICE vehicles, b) enhanced customer confidence with regards to range anxiety, financing avenues and other vehicle attributes such as safety. In addition, the Government's focus on promoting EVs through various initiatives (including PLI) will continue to drive EV adoption over the medium-term. ICRA expects penetration of e-2Ws to inch to 6-8% in the overall industry by FY2025 compared to approximately 5% at present.

## ICRA

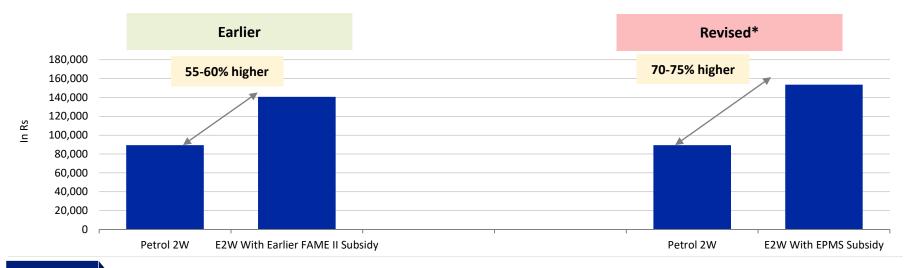
### Exhibit: Key modifications in the Electric Mobility Promotion Scheme 2024 subsidy

	Key Changes	Initial FAME II guidelines	Revised FAME-II guidelines (Jun 2021)	Revised FAME-II guidelines (May 2023)	EMPS (Mar 2024)
	<b>Cap on demand Incentive</b> (Percentage of Ex-Showroom price)	20%	40%	15%	Rs.10,000/e-2W
	Demand Incentive (Rs. per kWh)	10,000	15,000	10,000	5,000
	FAME II Allocation for E2W (In Rs. Crore)	2,000	2,000	3,500	330*

- On March 13, 2024, the Ministry of Heavy Industries, Government of India, announced the Electric Mobility Promotion Scheme 2024 with a total outlay of Rs. 500 crore to support adoption of e-2Ws and e-3Ws (including e-rickshaws, e-carts and L5 category vehicles) for a period of four months from April 1, 2024 to July 31, 2024. Around two-thirds of the outlay is proposed to be earmarked for e-2Ws.
- With the FAME-II subsidy expected to see a sunset on March 31, 2024, the current announcement by the Government of India is a timely move to support adoption of electric vehicles in the country. However, the scheme entails reduction in the quantum of subsidy being offered on per vehicle basis vis-à-vis the existing FAME-II guidelines. As per the scheme, the subsidy for e-2Ws has been reduced to Rs. 5,000/kWh from Rs. 10,000/kWh earlier with a cap of Rs. 10,000 per vehicle for e-2W (from 15% of ex-showroom price earlier), Rs. 25,000 for e-rickshaw/ e-cart and at Rs. 50,000 for L5 category e-3Ws, respectively.



#### Exhibit: Impact of latest amendment on upfront price (Rs.)





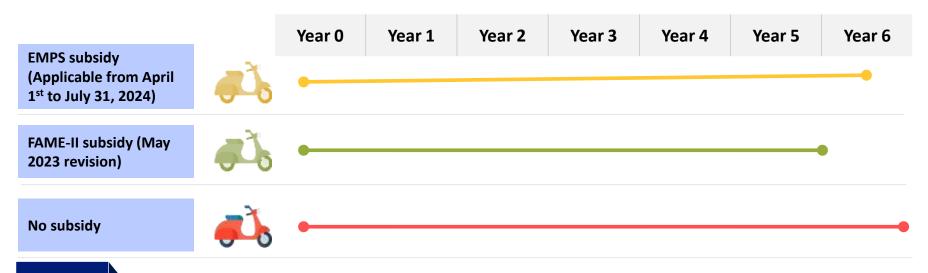
The initial purchase cost of an e-2W would increase by close to 10% compared to that with the FAME-II subsidy, if e-2W manufacturers were to completely pass on the subsidy reduction amount to the consumers in the form of price hikes. Moreover, this would make initial purchase cost of an e-2W costlier by over 70% compared to a petrol scooter.

Source: ICRA Research; \*-Revised price assuming OEMs completely pass on the subsidy reduction to the consumer

## Pay-back period for the enhanced upfront outlay to increase



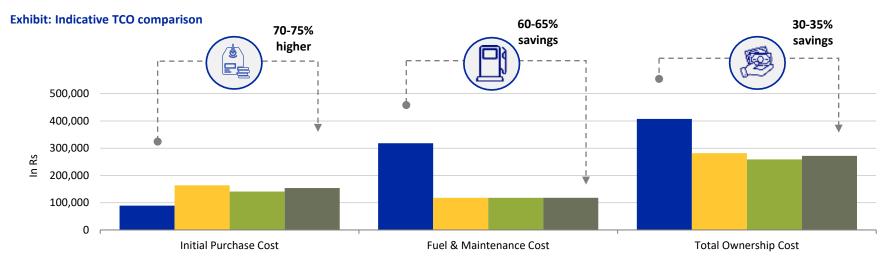
#### Exhibit: Payback period comparison for e-2W\*



In ICRA's estimates, the pay-back period could get elongated to 5.5 years vis-à-vis 5 years (under the FAME-II framework), if the e-2W manufacturers were to completely pass on the subsidy reduction amount to the consumers in the form of price hikes. The increase in payback period, would, however depend on the extent of OEMs passing on/absorbing the subsidy reduction.

## TCO, however, continues to remain favourable





Petrol Scooter Electric Scooter (Without FAME II subsidy) Electric Scooter (With FAME II subsidy as per May 2023 revision) Electric Scooter (With EMPS)



Notwithstanding the lowering of demand incentives, the Total Cost of Ownership (TCO) for e-2W still continues to be favourable vis-à-vis ICE vehicles, aided by substantial savings on running costs. The favourable TCO would thus continue to support adoption for the segment, with consumer awareness of the fuel savings and acceptability of the segment substantially improving over the last two years.

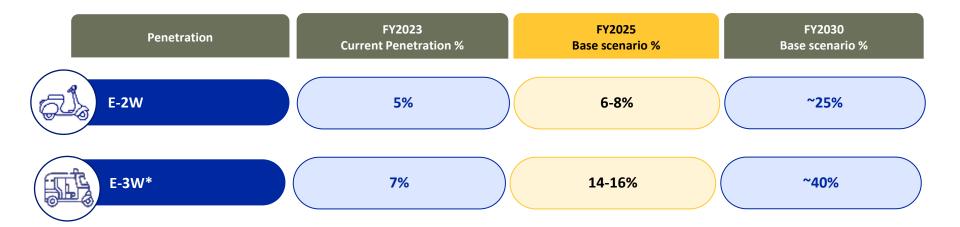
Source: ICRA Research; Note: Price of fuel assumed at Delhi; Distance per day assumed at 40 Km; Total cost of ownership assumed over 8 years and includes On road price, fuel cost, maintenance cost, battery replacement cost (for e2w) less residual value

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# Reduction in the subsidy benefit is a short-term impediment; however, long-term outlook favourable



Exhibit: ICRA's penetration estimate for e-2W and e-3W segments

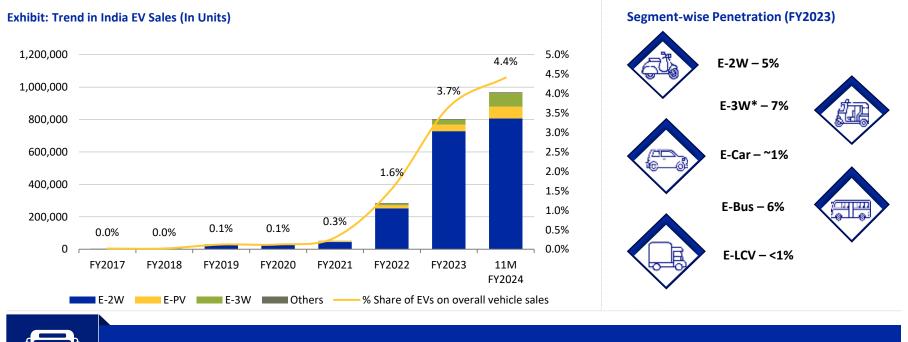


The reduction in the subsidy benefit is a short-term impediment and may impact demand to some extent. However, the long-term potential for e-2W segment remains favourable aided by a) improving cost of ownership vis-à-vis ICE vehicles, b) enhanced customer confidence with regard to range anxiety, financing avenues and other vehicle attributes such as safety. In addition, the Government's focus on promoting electric vehicles through various initiatives (including PLI) will continue to drive electric vehicle adoption over the medium term. ICRA expects penetration of e-2Ws to inch to 6-8% in the overall industry by FY2025 as compared to approximately 5% at present.

Source: ICRA Research; Note – Penetration measured in terms of new vehicle registrations; \*- Excludes e-rickshaw segment, which is already electrified to a large extent

## Material upturn in EV adoption since FY2022



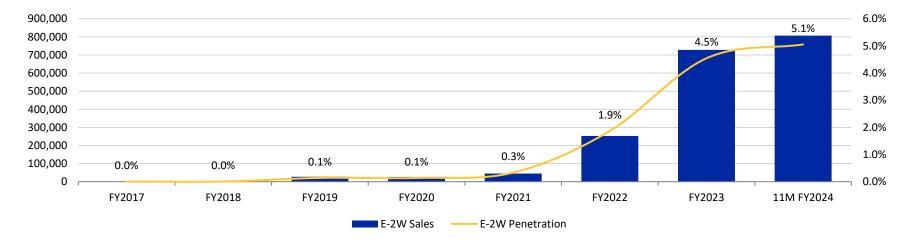


Over the past few years, EV penetration has improved significantly, particularly in 2Ws, 3Ws and electric buses. The EV penetration in 11M FY2024 was 4.4% of new vehicle sales, with a large part of it being derived from the electric two-wheeler segment.

## **Electric two-wheelers leading the electrification trend**



#### Exhibit: Trend in domestic E-2W sales





- The share of EVs in two-wheelers was about 5% in 11M FY2024; for scooters alone, the share being significantly higher at 14% for the same period.
- To some extent the pace of adoption has slowed down in the current fiscal after the FAME-II incentive for 2Ws was reduced to 10,000/kWh from 15,000/kWh earlier along with stricter cap in May 2023. Nevertheless, there is sequential improvement witnessed in the monthly sales trend in e-2W sales.



### Exhibit: Key factors which will determine profitability

	Continuation of Subsidy Benefits post EMPS	<ul> <li>Uncertainty regarding the continuation of subsidy beyond July 31, 2024 remains a monitorable</li> </ul>		
K	Economies of Scale	<ul> <li>Ramp-up in volumes would aid in reducing material cost through vendor renegotiation/discounts</li> </ul>		
	Battery/Electronic Component Cost	<ul> <li>Battery constitutes ~35-40% of the overall vehicle cost; battery cell prices have reduced in FY2024 and are expected to gradually decline</li> </ul>		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Localisation	<ul> <li>Enhanced localisation levels likely to aid in bringing down cost of production</li> </ul>		
Research & Development		<ul> <li>The OEMs continue to work on competitive products and various value engineering initiatives to aid profitability</li> </ul>		
<ul> <li>Although the reduction in subsidy benefits is a short-term impediment for e-2W manufacturers and could exert pressure on cost structures, if price hikes are not completely passed on, the pick-up in volumes is expected to partially mitigate the impact. Nevertheless, their ability to ensure timely fund raise to support the capital structure or competitiveness of manufacturers would be the key.</li> <li>Also, the OEMs will continue to strive to offer competitive products by leveraging their cost structure through localisation of key components and value engineering capabilities. In addition, softening in battery cells prices (which accounts for 35-40% of vehicle cost) will also help them offset the impact of lower subsidies to some extent.</li> </ul>				

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