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INDIAN TWO-WHEELER INDUSTRY

Subsidy structure amendments to steer E2W segment into slow lane

MAY 2023

Highlights

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EV adoption pace to slow down over the near term; E2W penetration estimate for FY2025 lowered to 10-12% from an earlier estimate of 13-15%, even as the FY2030 penetration forecast remains unchanged

On May 21, 2023, the Ministry of Heavy Industries (MHI) announced certain amendments to its flagship scheme (FAME II) for electric vehicle (EV) adoption. Under this, both the capping on demand incentive and incentive per kWh of battery size were lowered from the current levels, with the amendments coming into effect from June 1, 2023. This development comes in the wake of a positive development for the sector with Government deciding to re-allocate an additional Rs. 1,500 crore under the FAME II scheme to the E2W segment.

The latest amendment materially lowered the subsidy available per vehicle, with the cap on demand incentive lowered to 15% of ex-showroom price from the earlier level of 40%; the subsidy benefits available per Kwh were also lowered to Rs. 10,000/Kwh from Rs. 15,000/Kwh. Even as the price increases undertaken by E2W manufacturers to combat the subsidy reduction remain monitorable, the upfront price differential of an E2W vis-a-vis an internal combustion engine (ICE) vehicle is expected to increase materially.

The pay-back period for a premium E2W, which had declined to ~3 years, post the amendment to the FAME II guidelines in June 2021, would increase to ~5 years, post the latest revision in FAME II benefits, in the scenario wherein the E2W manufacturers decide to completely pass on the subsidy reduction amount to the consumers in the form of price hikes. Nonetheless, the Total Cost of Ownership (TCO) for E2W remains favourable, aided by substantial savings on running costs.

The lower subsidy benefits are likely to curtail the segment's growth pace over the short term and would exert pressure on the cost structure of the original equipment manufacturers (OEMs). Over the medium term, however, benefits from economies of scale and value engineering initiatives being undertaken by OEMs, are expected to help lower the upfront price and aid adoption/penetration.

FAME II allocation for E2W enhanced; subsidy per vehicle materially lowered

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EXHIBIT: Key modifications in the revised FAME II subsidy

Key Changes	Initial FAME II guidelines	Revised guidelines (Jun 2021)	Latest revision (May 2023)	Percentage Change
Cap on demand Incentive *(Percentage of Ex-Showroom price)*	20%	40%	15%	↓ 63%
Demand Incentive *(Rs. per kWh)*	10,000	15,000	10,000	↓ 33%
FAME II Allocation for E2W *(In Rs. Crore)*	2,000	2,000	3,500	↑ 75%

- On May 21, 2023, the Ministry of Heavy Industries (MHI) announced certain amendments to its flagship scheme (FAME II) for electric vehicle (EV) adoption. Under this, both the capping on demand incentive and incentive per kWh of battery size were lowered from current levels, with the amendments coming into effect from June 1, 2023. This amendment comes in the background of the Government decision to allocate an additional Rs. 1,500 crore from the unutilised funds allocated under the FAME II scheme for other vehicle segments, to the E2W segment.

Source: Gazette of India, ICRA Research; FAME - Faster Adoption and Manufacturing of Hybrid and Electric Vehicles

Initial fund allocation for the E2W segment was nearly exhausted

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EXHIBIT: FAME II – Target Vs Achievement till date (Number of units)

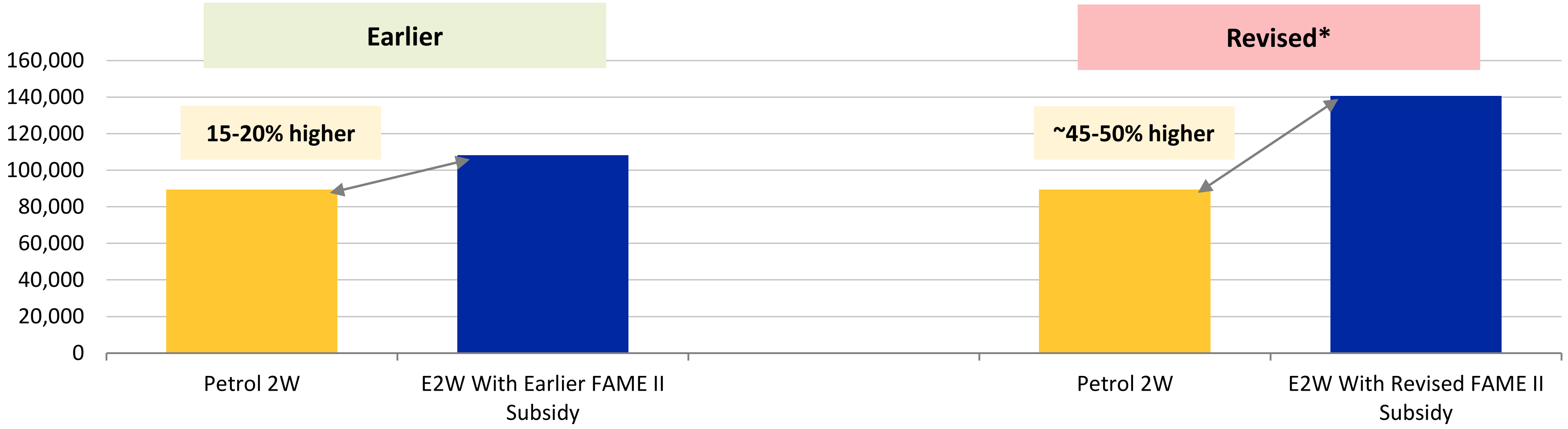
ALLOCATION UNDER FAME II		ACHIEVEMENT TILL DATE
10,00,000	E2W	9,88,754
5,00,000	E3W	96,378
55,000	E-Car	8,917
7,000	E-Bus	2,435

- The funds allocated under FAME II to the E2W segment were nearly exhausted, led by the material increase in the segment's sales over the past 15-18 months. In contrast, the fund utilisation for other segments remained sub par till date, thereby providing the Government the option to reallocate available funds to e2w segment.

Source: FAME II Dashboard as on May 21, 2023, ICRA Research

Latest amendment materially increases upfront price differential with ICE vehicles

EXHIBIT: Impact of latest amendments on upfront price (Rs.)



- The latest amendment materially lowered the subsidy available per vehicle, with the cap on demand incentive lowered to 15% of ex-showroom price from the earlier level of 40%; the subsidy benefits available per Kwh were also lowered to Rs. 10,000/Kwh from Rs. 15,000/Kwh. Even as the price increases undertaken by E2W manufacturers to combat the subsidy reduction remain monitorable, the price differential of an E2W vis-a-vis an ICE vehicle is expected to increase materially.

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

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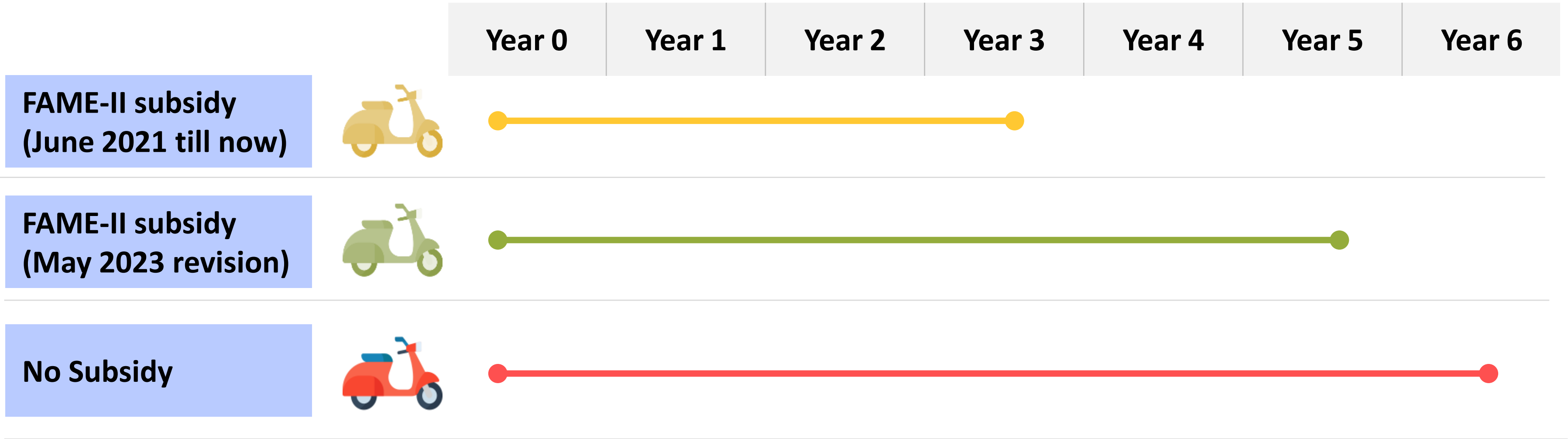
EXHIBIT: e-2W payback period comparison for premium e-scooters

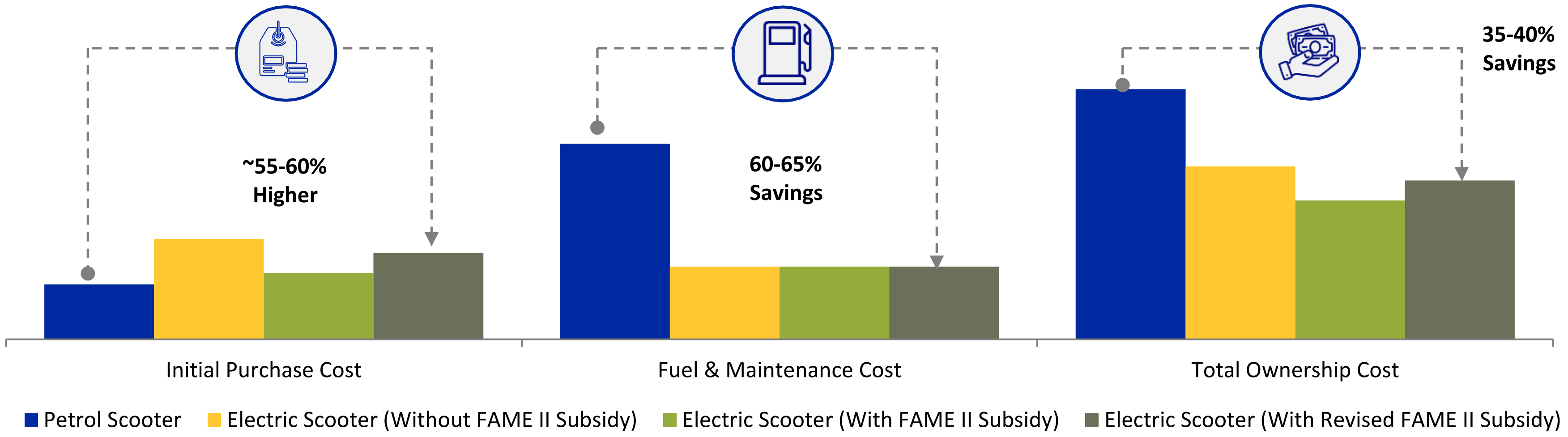


- The pay-back period for a premium E2W, which had declined to ~3 years post the amendment to FAME II guidelines in June 2021, would increase to ~5 years post the latest revision in FAME II benefits, in the scenario wherein the E2W manufacturers decide to completely pass on the subsidy reduction amount to the consumers in the form of price hikes. The increase in the pay-back period would be a bit lower in case the OEMs absorb an extent of the subsidy reduction, thereby taking a hit on their realisations.

Source: ICRA Research

TCO, however, continues to remain favourable

EXHIBIT: Indicative TCO comparison



- Notwithstanding the lowering of demand incentives, the Total Cost of Ownership (TCO) for E2W 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 past 15-18 months.

Source: ICRA Research; Note: Price of fuel assumed at Delhi; FAME subsidy assumed at Rs.45,000, respectively. Distance per day assumed at 40 Km; Total cost of ownership assumed over 8 years and include On road price, fuel cost, maintenance cost, battery replacement cost (for e2w) less residual value

EV adoption pace to slow down over near term; medium term outlook unchanged

EXHIBIT: ICRA's penetration estimate for E2W segment

Electric Two-Wheelers Penetration	FY2023 Current Penetration %	FY2025 Base scenario %	FY2030 Base scenario %
Earlier Estimate	~5%	13-15%	~30%
Revised Estimate	~5%	10-12%	~30%

- The E2W segment had seen an exponential growth in demand over the recent past, aided by the healthy subsidy benefits and availability of feature-rich products. With the subsidy benefits lowered materially, the segment growth pace is likely to slow down over the short term. Over the medium term, however, benefits from economies of scale and value engineering initiatives being undertaken by the OEMs, are expected to help lower the upfront price and aid adoption/penetration.

Source: ICRA Research; Note – Penetration measured in terms of new vehicle registrations

Profitability in the segment expected to take time

EXHIBIT: Key factors which will determine profitability

Continuation of FAME II Subsidy Benefits	▪ Uncertainty regarding the continuation of FAME II beyond FY2024 still continues
Economies of Scale	▪ Ramp-up in volumes would aid in reducing material cost through vendor renegotiation/discounts
Battery/Electronic Component Cost	▪ Battery constitutes ~35-40% of the overall vehicle cost; battery cost expected to gradually decline
Localisation	▪ Enhanced localisation levels likely to aid in bringing down cost of production
Research & Development	▪ OEMs continue to work on various value engineering initiatives to aid profitability

- The reduction in subsidy benefits is a short-term setback for the E2W manufacturers and would exert pressure on their cost structures. The road to profitability for the industry has been stretched further, with the players being impacted materially by rise in battery and electronic part prices in CY2022. In this context, timely fund raise to support the capital structure/competitiveness of start-up players would be the key.

Source: ICRA Research

ANNEXURE

Annexure: Revision in subsidy benefits for leading E2W models

Exhibit: Subsidy benefits for key models

Model	Battery Size	Earlier FAME II Subsidy	Revised FAME II Subsidy	% Change
OLA S1 Pro	3.97	Rs. 59,500	Rs. 22,500	62%
Ather 450X	3.7	Rs. 55,500	Rs. 22,500	59%
TVS iQube	3.4	Rs. 51,000	Rs. 22,500	56%
Bajaj Chetak	2.9	Rs. 43,500	Rs. 22,500	48%
Tork Kratos-R	4.0	Rs. 60,000	Rs. 22,500	63%

Source: ICRA Research ; The list is indicative and not exhaustive.

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Thank You!