



BSE Limited
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Dalal Street, Fort, Mumbai 400 001
Kind Attn: Mr Khushro A. Bulsara
General Manager & Head
Listing Compliance & Legal Regulatory

Listing Compliance Department
National Stock Exchange of India Ltd.
Exchange Plaza, Bandra Kurla Complex,
Bandra (E), Mumbai 400 051
Kind Attn: Mr Lokesh Bhandari
Senior Manager
Listing & Compliance

November 10, 2021
Sc- 16569

Dear Sirs,

Sub: Submission of Investor presentation made to Analyst/Investors

With further reference to our letter bearing sc no. 16566 dated November 9, 2021 and pursuant to Regulation 30 read alongwith Schedule III Part A para A of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, as amended, please find enclosed herewith the presentation made to Analysts/Investors at their meeting held today i.e. November 10, 2021.

Yours faithfully,
Tata Motors Limited

Maloy Kumar Gupta
Company Secretary

Encl: As above

TATA MOTORS LIMITED

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Future of Electric Vehicles in India

Mr. Shailesh Chandra



10th Nov 2021



Indian EV industry: Progress so far...

Issues of National Interest



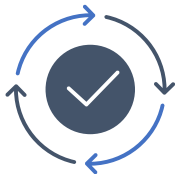
Urban Pollution

- 14/15 polluted cities
- 1.2 Mn deaths
- Welfare losses - 7.7% of GDP



Increasing Trade Deficit

Vehicular fuel requirement to increase to 90Bn in 2030 from 40Bn in 2017



Energy Security

~70% of oil sourced from countries with geo-political risks

Focus areas



COP 26 commitment

Reduction in emissions intensity by 45%¹ percent below 2005 levels by 2030, net zero by 2070



“Aatmanirbhar” Bharat

Proactive localization of EVs and New technologies in Automotive filed



Employment generation

Maintain and enhance the employment in Automotive sector

1. <https://economictimes.indiatimes.com/news/india/global-media-hails-indias-commitment-in-cop26-summit/articleshow/87566929.cms>

Multiple barriers have kept the penetration of EVs low in India



Range anxiety

Poor range for long/outstation trips, High charging time, Unpredictable range



Ltd. charging infrastructure

Inadequate, Unavailable on-demand, Unreliable power supply



Lack of suitable EV options

Limited models, Not aspirational, Inadequate range



Lack of awareness of EVs

EVs are low speed - low performance cars for city usage



Higher cost

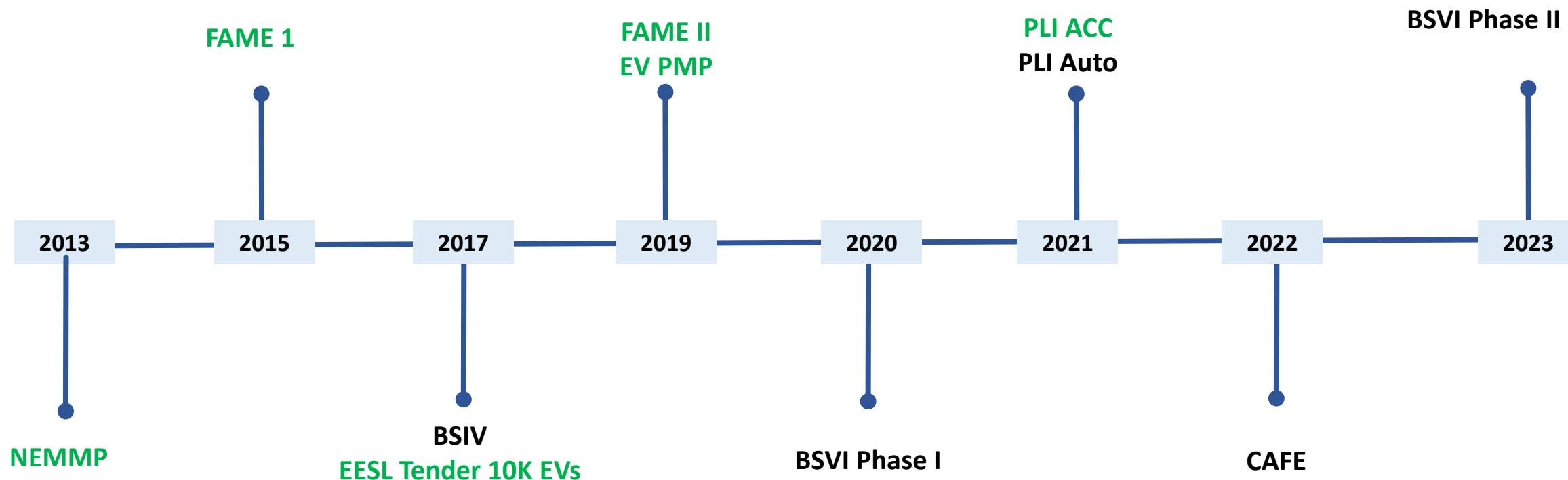
Higher vehicle price, Residual value, Battery replacement cost



Technology uncertainty

Battery life uncertainty, Safety concerns

Government has shown a strong intent to drive electrification through enabling policies to overcome the barriers to adoption



Low GST Rate

Road Tax & Registration waiver

Income Tax Exemption

Offering more choices to the customers and addressing the issues around range and price have been crucial in increasing the consideration for EVs

XPRES-T



Xpress- T (LV) : 162 Km and 213 Km, 21 kWh

ZIPTRON



Nexon EV (HV): 312 Km, 30.2 kWh

ZIPTRON



Tigor EV (HV): 306 Km, 25.9 kWh

Awareness creation, credibility building and myth busting have brought greater confidence among prospective buyers

Creation of Awareness & Aspiration

State of the art EV tech brand **Ziptron** launch

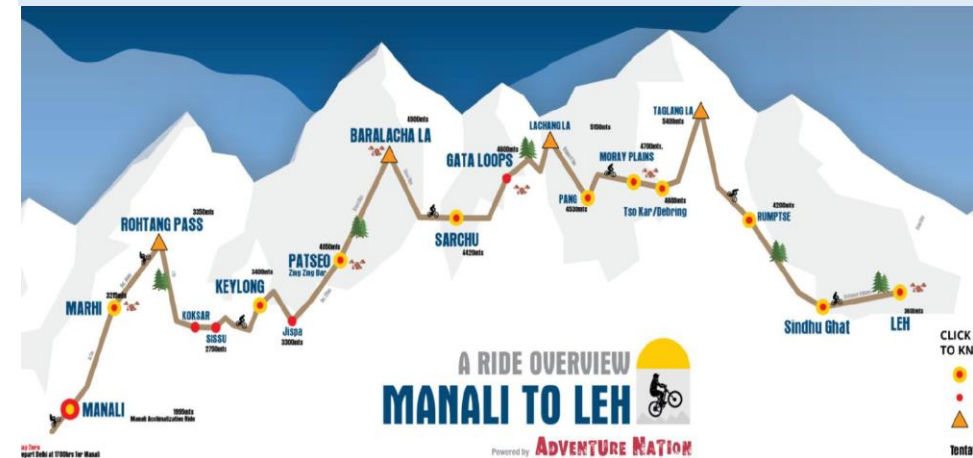


An **immersive drive experience** of the Nexon EV



Building Credibility & Breaking Myths

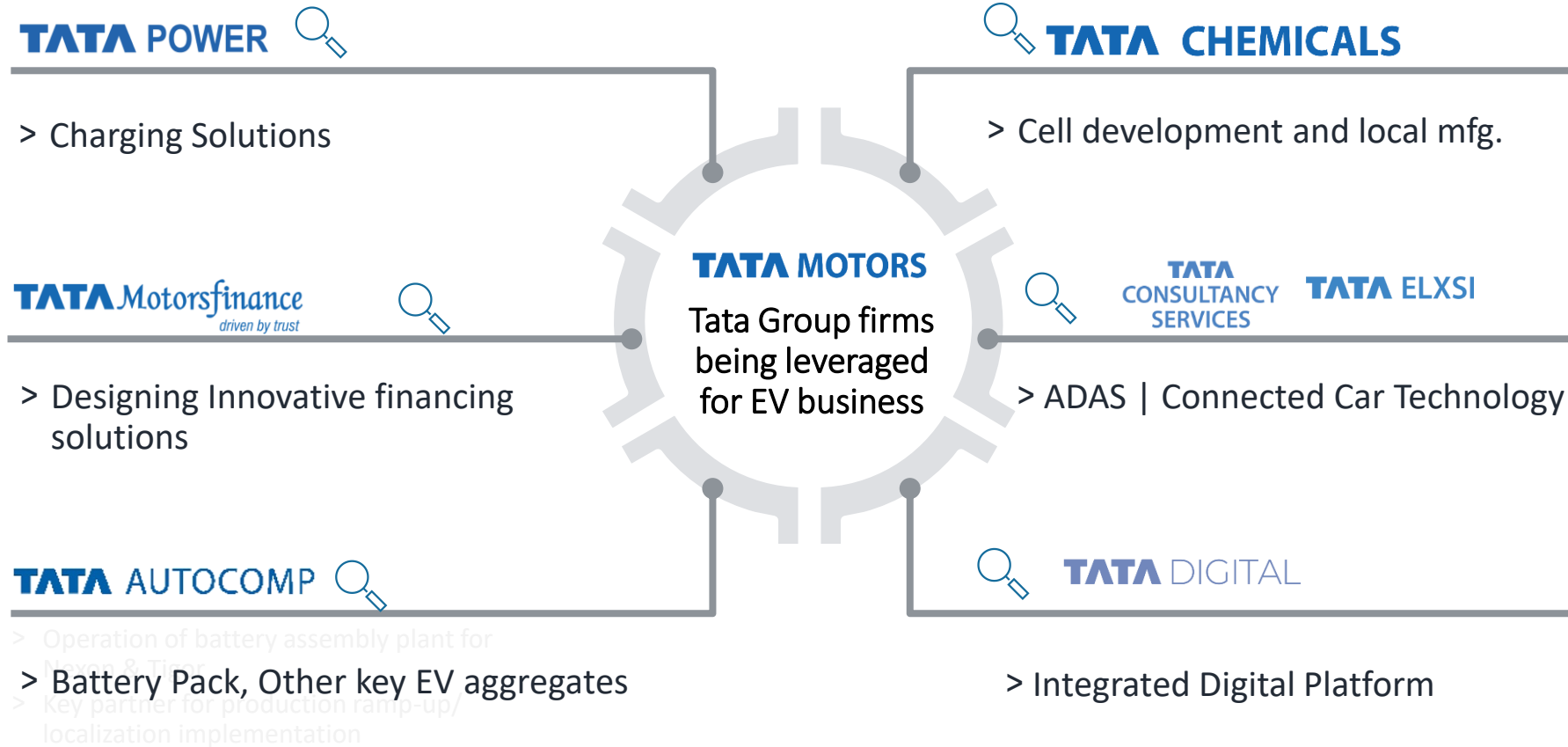
1st Electric 4 W to travel from **Manali to Khardungla (Leh)**



#TheUltimateElectricTest to bust all myths

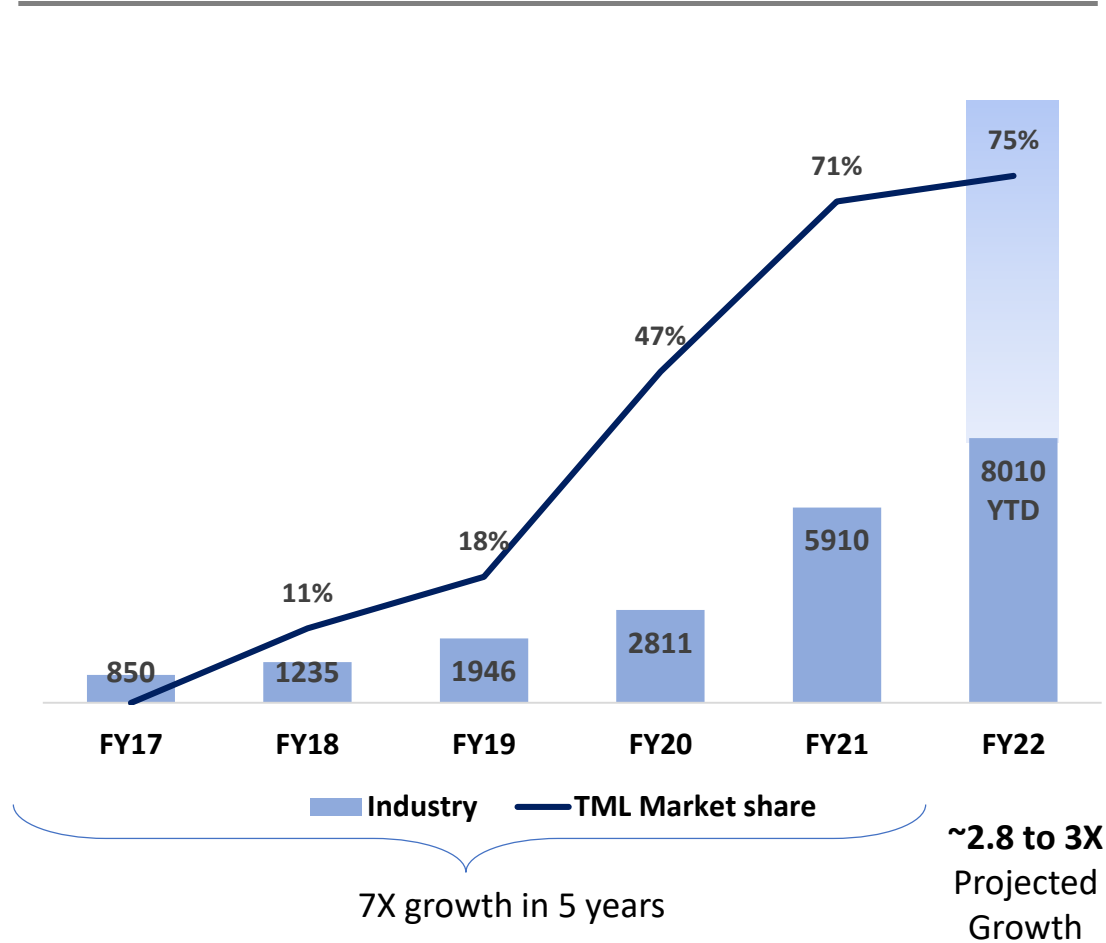


Ecosystem Approach has enabled synchronized action among various companies to overcome the real barriers to adoption

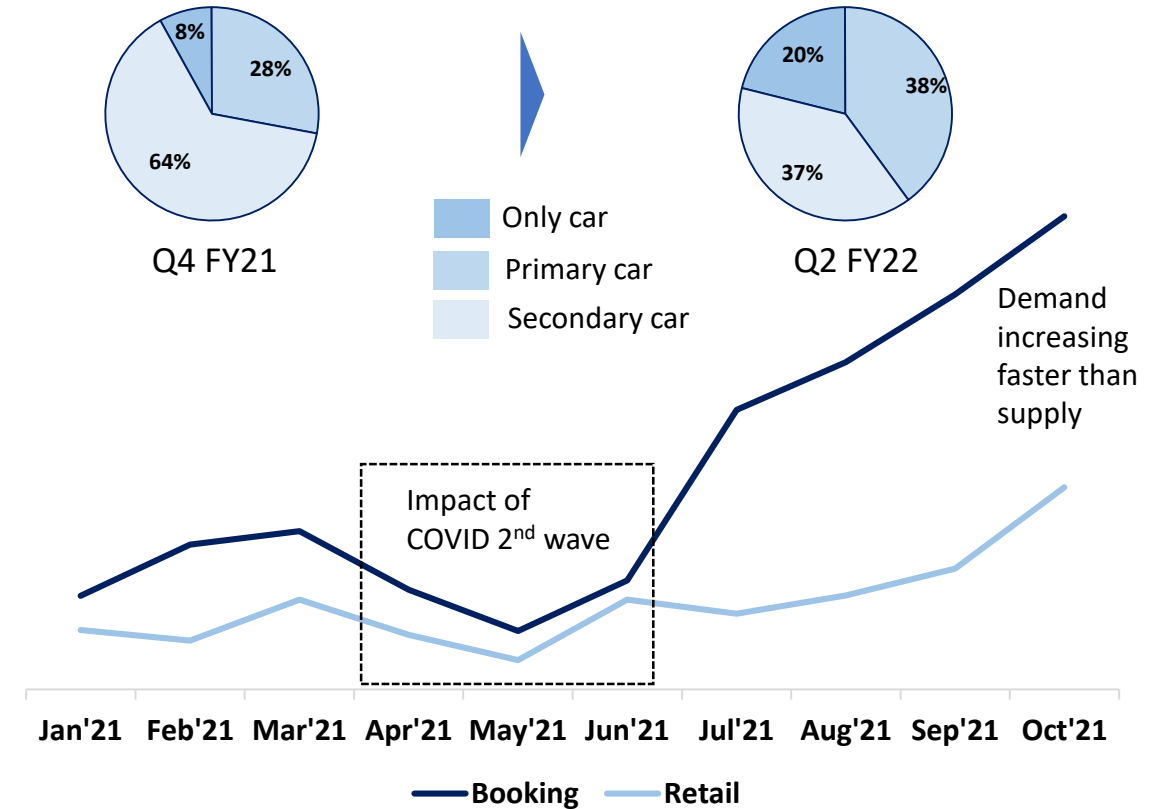


Thus, EV industry has witnessed a significant growth with consumer base shifting from early adaptors to early majority

EV Industry Growth



Demand Scenario and buyer profile (Tata EVs)

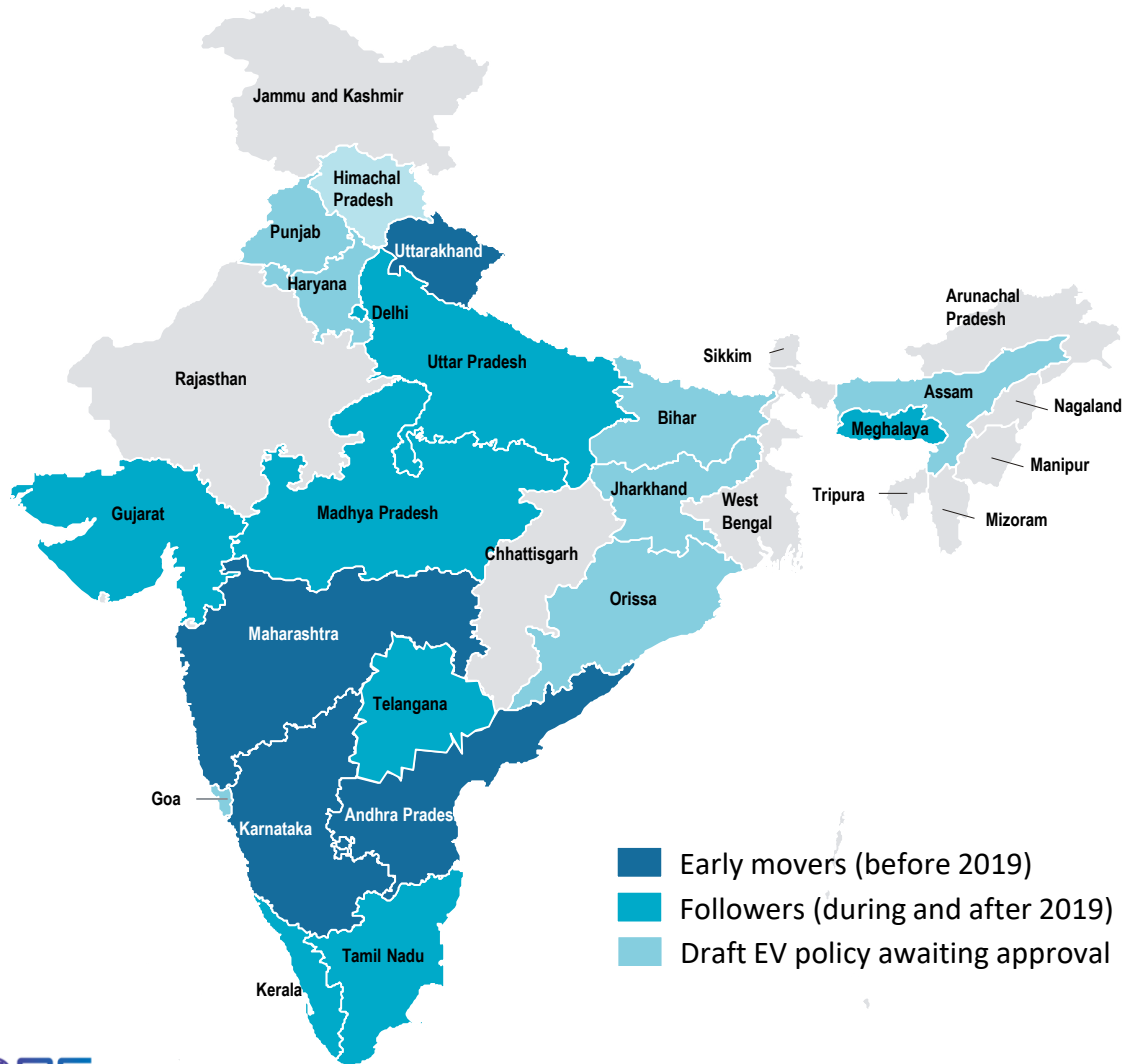




What will support the future growth?

Going forward, state specific EV policies will drive EV adoption

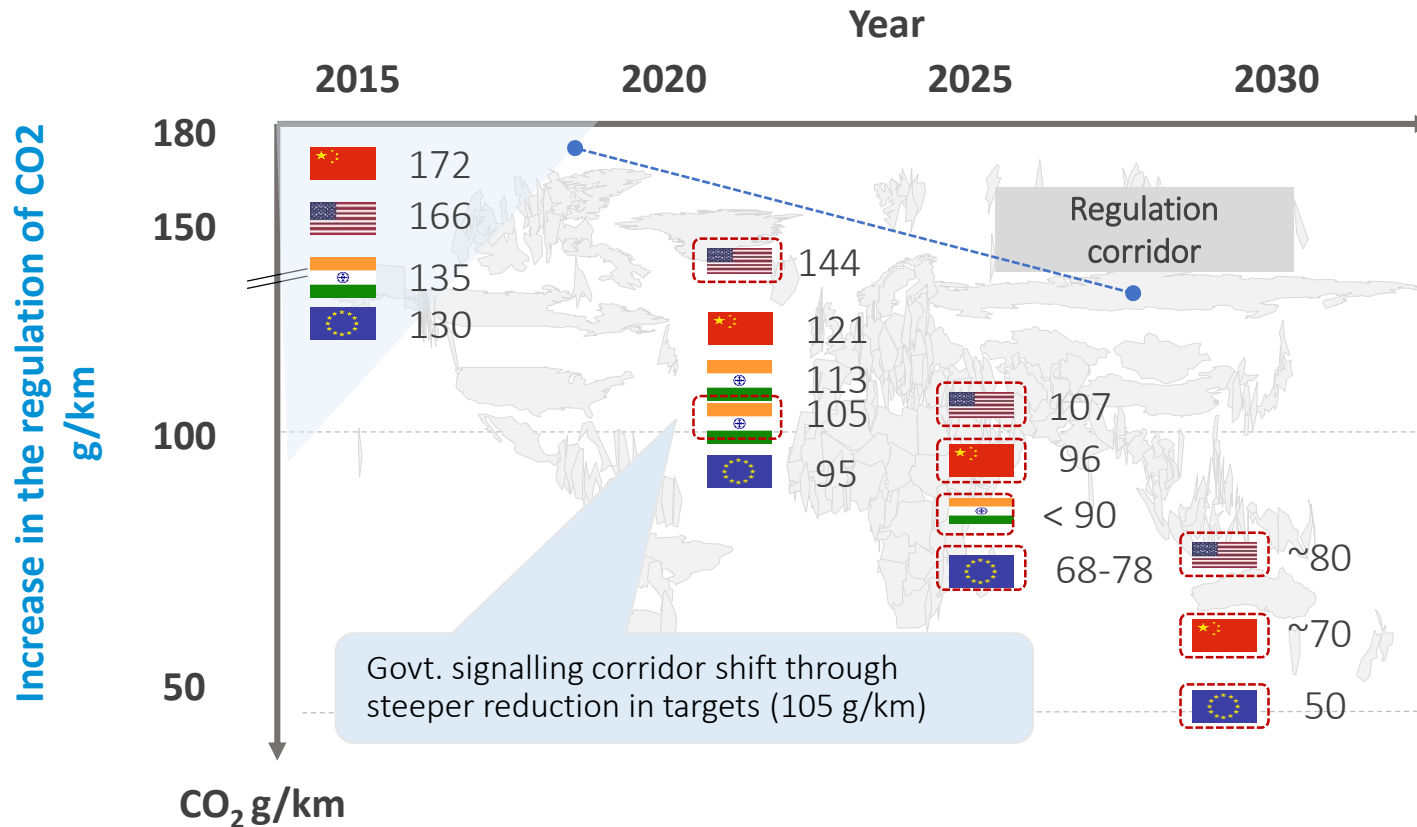
Policy Release Status



State	Demand subsidy	Road tax exemption	Charger subsidy
Delhi	✓	✓	✓
Maharashtra	✓	✓	✓
Gujarat	✓	X	✓
Andhra Pradesh	X	X	✓
Karnataka	X	✓	✓
Kerala	X	Partial	✓
Madhya Pradesh	X	✓	✓
Tamil Nadu	X	✓	X
Telangana	X	✓	X
Uttar Pradesh	X	Partial	X
Uttarakhand	X	✓	X
Bihar (Draft)	✓	✓	✓
Goa (Draft)	✓	X	✓
Haryana (Draft)	✓	✓	✓
Meghalaya (Draft)	✓	✓	X
Punjab (Draft)	X	✓	✓
Jharkhand (Draft)	✓	✓	✓

Stringent emission roadmap will force OEMs to have EVs in their portfolio

Corridor for potential CO2 regulation



Required powertrain portfolio

“World of today”

Less than 10% EVs required

“Mix of powertrains”

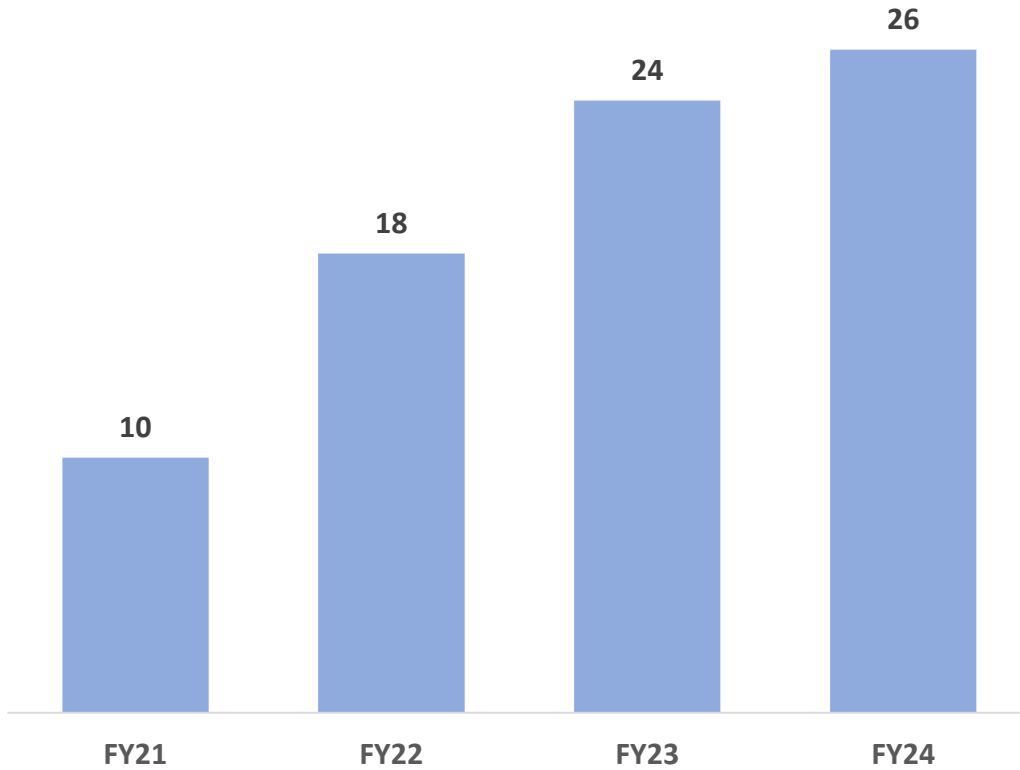
Equitable composition of ICE & EVs needed

“EV World”

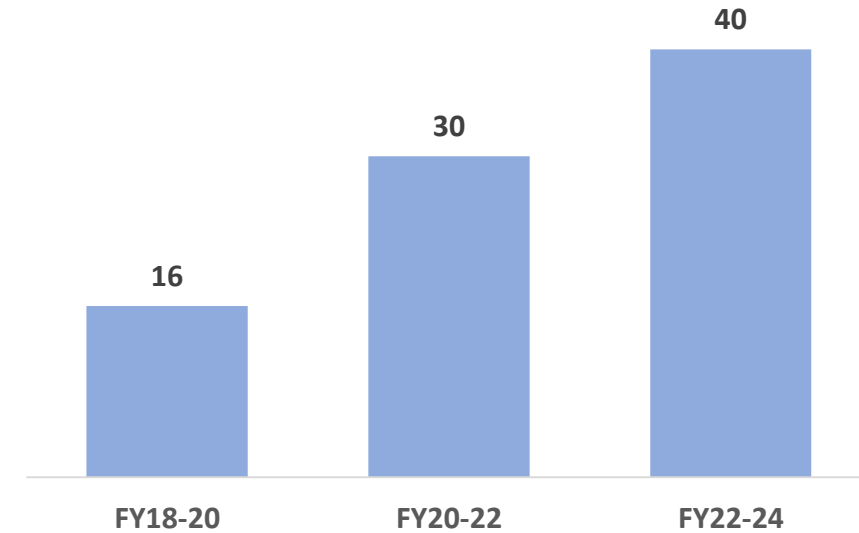
Primarily EVs and PHEVs needed

Customers will get range of options as OEMs gear up to introduce long range EVs to meet stringent regulations and to support Government's vision

Upcoming EV models

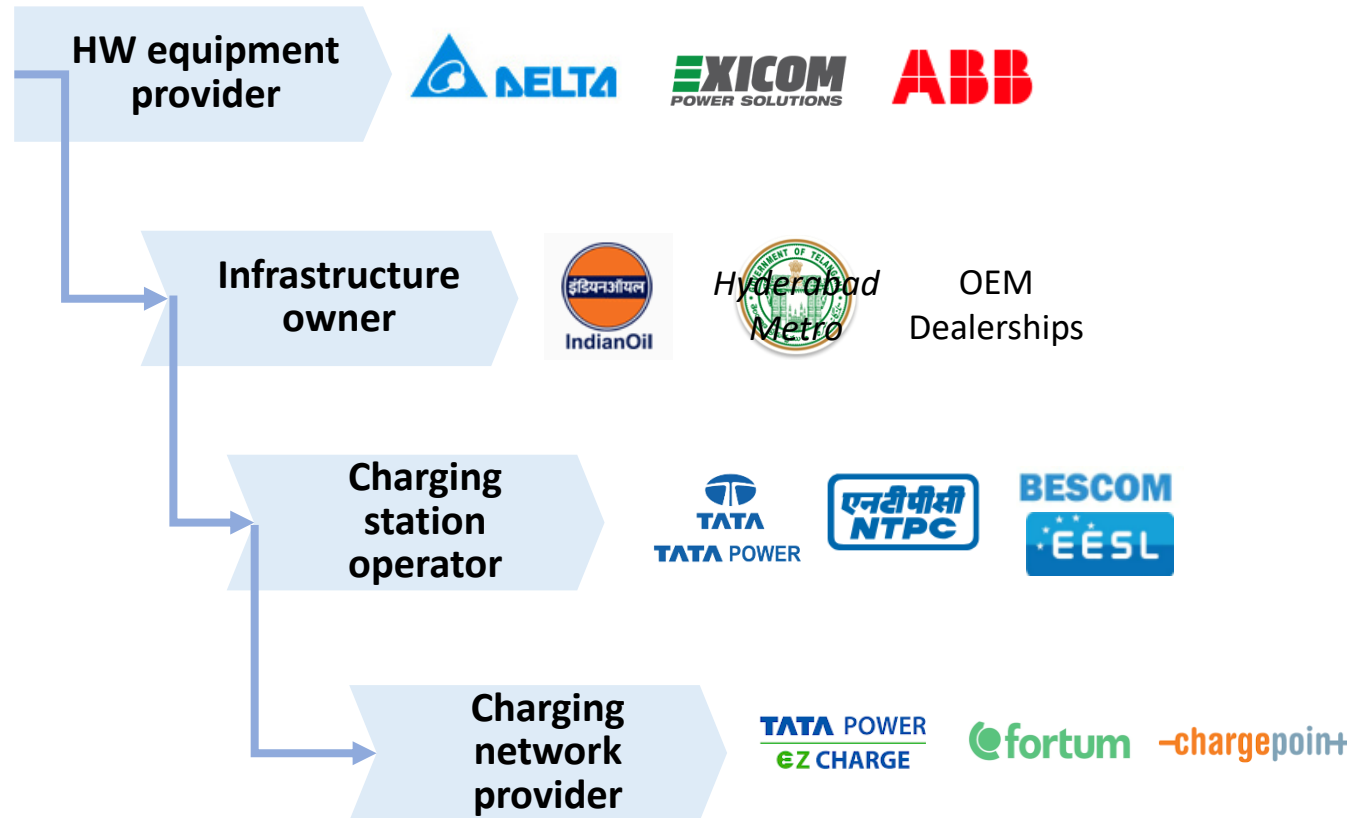


Average on board energy

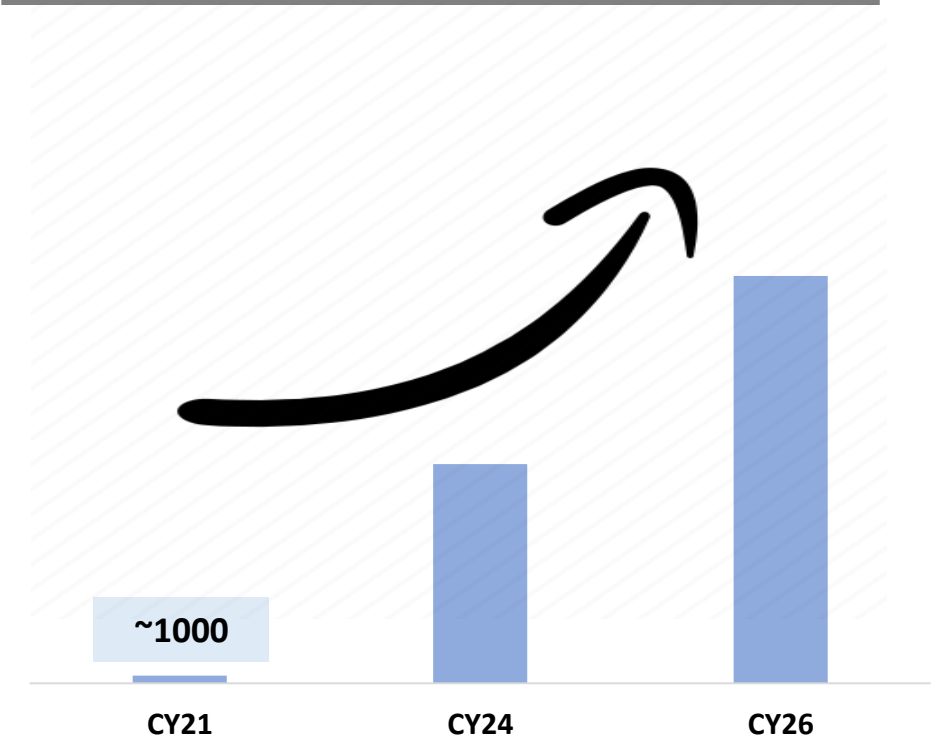


Interest from public and private players across the value chain will proliferate charging infrastructure

Value Chain



Outlook : Public Fast Chargers



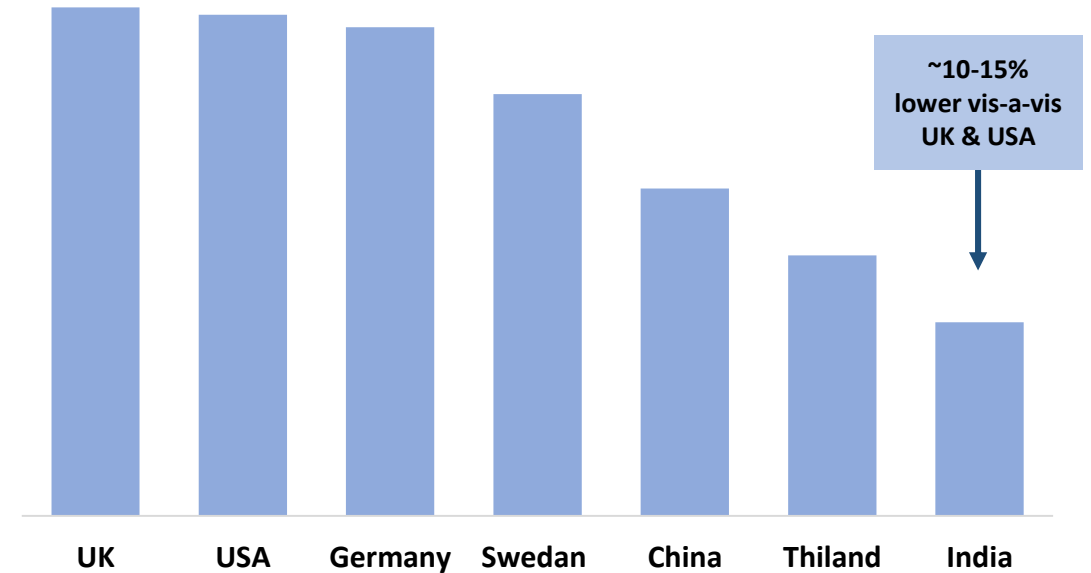
Localization of battery will help optimize cost

Key highlights of ACC PLI scheme



- **Production linked incentive scheme** to establish **battery manufacturing** in India
- **18000 Cr. outlay** planed
- **50GWh of capacity** to be established
- **Additional 5GWh** for niche battery chemistries

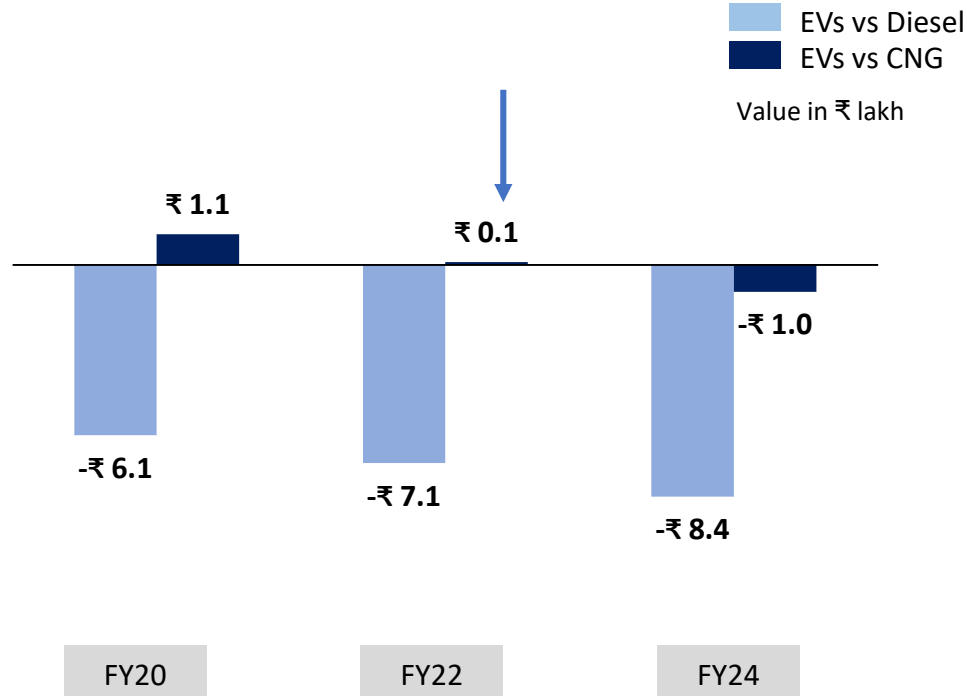
Estimates for cell manufacturing cost [USD/ Kwh]



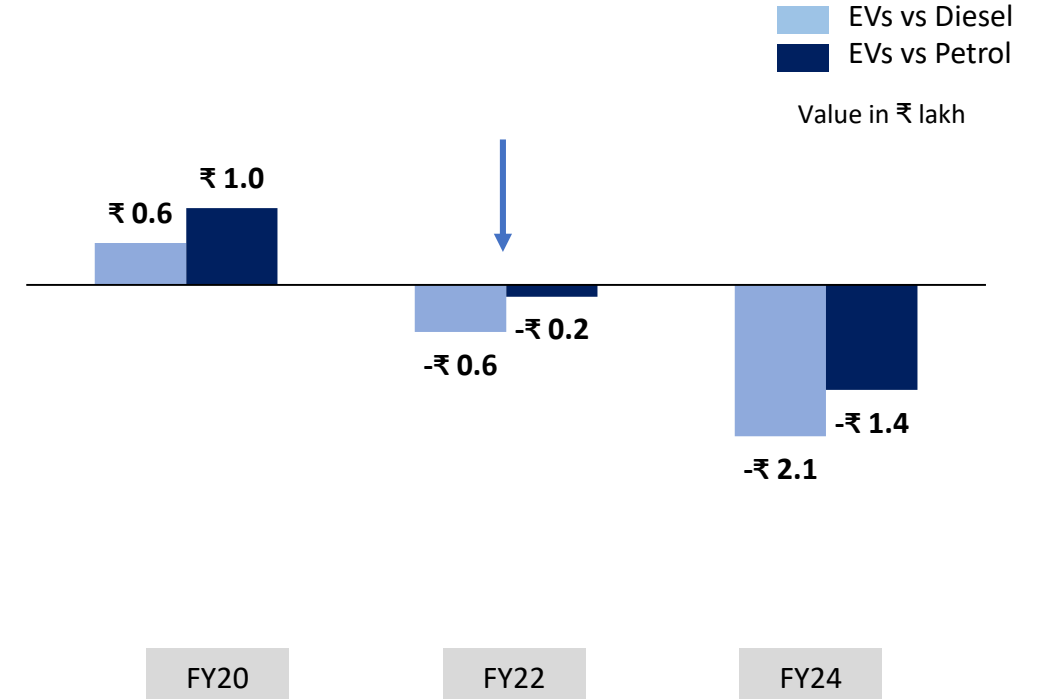
Source – BNEF
Cost is hypothetical for 'If battery cells are manufactured in India'

TCO parity against ICEs will drive consumer adoption

Total Cost of Ownership B2B¹ (with FAME subsidy)



Total Cost of Ownership B2C²



1) Vehicle life 4 years, annual running 50K, 90% financing @12% interest, Charging cost 7/kWh, Resale EV30%, Resale Diesel, & CNG 40%

2) Vehicle life 5 years, annual running 10K, 80% financing @12% interest, Charging cost 7/kWh, Resale EV 20%, Resale Petrol 30%

EV penetration in India is well poised to witness sharp penetration and Tata Motors will plan for 20% penetration in 5 years



Product

- Expand portfolio of **offering India specific products with different body styles and driving ranges** (10 EVs by FY26)
- Transition to **Modular Multi-energy platform** from Conversion EVs



Sales & Marketing

- **Expand beyond existing micro-markets** (100+ cities , 255 touchpoints in FY22)
- **Strong focus on states with progressive EV policies**
- Continue brand building for **awareness creation and driving aspiration**
- Increase **options to access Tata EVs** (e.g Subscription)



Capability building

- **Drive deeper localization** (localization of Tier-1 & Tier 2 components)
- **Build center of competence**



Ecosystem Development:

- **Expand Tata UniEVerse to offer holistic solutions to customers** (Charging, financing, options to access TML EVs etc)
- **Operationalising plan on battery reuse, repurpose and recycle**



Thank You!