Tata Motors Passenger Electric Vehicles Business

Investor Presentation 12 October 2021

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TML EV journey so far
EV industry has witnessed a growth of 1.5-2X every year between FY17-FY21.

**Growth Drivers**

1. **Favourable Govt. policies** (e.g. FAME II, other fiscal and non fiscal incentives)
2. **Launch of aspirational mainstream EVs**
   by OEMs (e.g. Nexon EV)
3. **Positive WoM** through existing customers
4. **Increase in ICE vehicle prices** post BSVI
5. **Steep increase in fuel prices** leading to higher running cost for ICEs

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Ev Industry Growth

FY17 FY18 FY19 FY20 FY21 FY22
850 1235 1946 2811 5910 15-16K
~2.5-2.7X
Projected Growth
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7X growth in 5 years
Tata Motors is leading the EV revolution in India

# 1
Selling EV in India
– Tata Nexon EV

312km
Certified EV range

400+
Charging stations

50 million km
Real world experience

70%+
Indian EV market share
(FY21)

9.9 secs
0–100 kmph

60mins
Fast charge
(0–80%)

2,500
Potential customer touchpoints

15+ Awards and accolades

- Green Car of the Year 2021
- EV of the Year 2021
- Global Best Electric 4W
- Autocar Green Car of the Year 2021
- Red Dot Design Award
- Zconnect mobile app

Note: 1 Metrics for Tata Nexon; 2 Deployed by Tata Power
Holistic offering of product, network & charging infra

Carefully curated offerings for Fleet segment; Exciting, aspirational and accessible offerings for Personal segment

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

**Nexon EV (HV):** 312 Km, 30.2 kWh

**Tigor EV (HV):** 306 Km, 25.9 kWh

**Cites**

- FY20: 22
- FY21: 51
- YTD FY22: 60

**Touchpoints**

- FY20: 43
- FY21: 97
- YTD FY22: 150

**Charging infra**

- Public charging network: ~700+ chargers across India
- 7000+ AC slow chargers
- 150+ Captive charging points
TML EV business continues to grow exponentially; Market leadership achieved. Growth potential is much higher.
Project Helios – Winning Proactively in EV

Writing the India EV story
### Govt. initiatives and demand drivers provide further impetus to EV industry

#### State EV Policies

<table>
<thead>
<tr>
<th>Government incentives</th>
<th>Demand drivers</th>
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<tbody>
<tr>
<td>PLI schemes</td>
<td>Stringent emission roadmap will necessitate EV adoption by OEMs</td>
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<td>TCO parity with ICEs will further propel EV adoption</td>
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<td>Better customer options as OEMs introduce long range EVs</td>
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### TML to take the lead in accelerating this exciting journey

**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)
- Continue brand building for awareness creation and driving aspiration
- Increase options to access Tata EVs (e.g., Subscription)
- Drive superior customer experience through digital tool and experience centres

**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
Helios : Business rationale

**PV subsidiarization, March 2020**
- Differentiated focus for CV, PV to help each realise their potential
- Unlock business value, focus and operational flexibility
- Improve ability of TML to reward shareholders
- Secure mutually beneficial strategic alliances for PV

**PV (Strategy - Win Sustainably)**
- Aim: Double digit market share, High single digit EBITDA and FCF positive by FY23
- Actions: Reimagine PV, “Forever New”, Leverage Alpha and Omega architectures and existing Assets, Careful investment choices

**EV (Strategy – Win Proactively)**
- Aim: Lead the EV charge in the Indian market
- Actions: Introduce 10 new EVs, Catalyse Charging infrastructure, Invest proactively in drive trains, products and platforms.

**Implications**
- EV requires > $2B of investments in the next 5 years.
- PV will be fund constrained to support the aggressive EV aspirations
- Need to continue to build momentum in EV to retain competitive advantage
- EV technologies are still evolving and hence risky

**Investor pool**
- Given EV’s core net zero emissions credentials, a different segment of investors who focus on the long term, carbon free world are accessible
- There is potential for significant value unlock and ability to fund the requirements of the business
Key aspects of Helios

1. Create a pure play EV company to focus on passenger mobility
   - TML EVCo to be created as an asset lite new subsidiary of TML
   - Will house all dedicated EV talent and design capabilities of TML
   - Aim to attract top-notch global talent

2. Step up investments in EV and related technologies to > $2B
   - TML EVCo to invest in excess of $2B (INR >16KCr) over the next 5 years in products, platforms, drive trains, dedicated EV manufacturing, charging infrastructure and advanced technologies

3. Leverage existing PV investments to drive efficiencies
   - TML EVCo to leverage all existing investments in technologies, brands, manufacturing capacities and sales network of TML PVCo; TML PVCo plays role as Toll Manufacturer and provider of services.
   - Ensures minimal duplication while accelerating speed to market

4. Onboard likeminded external investors
   - Onboard like-minded external investors to access capital, tap the global ecosystem and unlock value
   - External scrutiny will sharpen delivery focus
Transaction structure

Proposed structure and perimeter

- External Investors
  - 11-15%

- Tata Motors Limited (listed company)
  - 85-89%

- Tata Motors EV (EVCo)
  - EV product Focus
  - Build and own future IPs for EV
  - Catalyse creation of charging infrastructure

- Tata Motors PV (PVCo)
  - PV Product Focus
  - Own existing assets (IPs, Mfg., Brands, Network)
  - Toll Manufacturer for PV and EV Vehicles

- Pool CAFÉ credits
  - 100%
TPG Rise to invest $1B at a valuation of upto $9.1B
Process involved selective outreach to marquee investors

• TPG Rise Climate to be the lead investor
  • TPG Rise Climate is a $7Bn fund with a focus on investing in companies that enable carbon reduction in a quantifiable way

• ADQ to be a co-investor
## Key terms

### FUNDING

**$1B equity funding**

- TPG Rise commitment of INR 7,500 Cr ($1 Bn)
  - 50% by March 22 post set-up of the EVCo
  - Balance 50% by Q3 2022 on achieving “Go Live” actions

### INSTRUMENT

**Convertibles linked to long term performance**

- CCPS, compulsory convertible preference shares
- Converts to ordinary equity shares in EVCo basis achieving revenue thresholds

### VALUATION

**Implied valuation of upto $9.1 Bn (post money)**

- Upto $9.1 Bn for a 11-15% stake

The transaction is subject to conditions precedent and customary approvals.
Project Helios – Winning Proactively in EV

Additional Material
Key to growth: Creating awareness and aspiration while bursting myths

Creating awareness & aspiration

State of the art EV tech brand Ziptron launch

Building credibility by bursting myths

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

An immersive drive experience of the Nexon EV

#TheUltimateElectricTest to bust all myths
Key to growth: Sharp customer segmentation and focus

Identifying customer archetypes

- Environmentally conscious
- Well travelled
- Tech and feature geeks
- Low maintenance seekers

• Deliver differentiated value proposition & customer experience

Prioritization of focus cities

- Identification of focus cities basis:
  - Target segment presence
  - CUV market size
  - Maturity / plans of charging ecosystem
  - Competition focus

Micro-market mapping

- Identify where target customers live, work & shop
- Targeted marketing, channel & charging infra set-up
Key to growth: Localisation of key components
Better cost optimization and greater control over supply chain

Increase in localised supply to drive down costs

<table>
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<tr>
<th>FY21</th>
<th>FY25</th>
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<td>~60%</td>
<td>&gt;85%</td>
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<td>Localization</td>
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- BIW
- Battery Pack
- E-Drive
- Inverter
- DC-DC Converter
- Compressor
- BMS
- Deeper localization of Battery pack
- E-Drive
- Inverter
- Integrated Electronics

Partnerships with marquee suppliers

- Proximity from manufacturing locations
- Multiple Active vendors
- 35% Energy consumption from renewable energy sources

- Valeo
- APTIV
- BOSCH
- HELLA
- Motherson

Better cost optimization and greater control over supply chain
Key to growth: Ecosystem solutions provided by TATA UniEVerse

Could create holistic solutions that gave comfort to customers and drove adoption

TATA MOTORS

Tata Group firms being leveraged for EV business

TATA POWER

- India’s leading player in the EV charging space
- Home charging installation support in all cities to support TML EV customers

TATA AUTOCOMP

- Operation of battery assembly plant for Nexon & Tigor
- Key partner for production ramp-up/localization implementation

TATA MOTORS

TATA CHEMICALS

- Cell development and local mfg.
- Technical partner for evaluating establishment of Lithium-ion cell manufacturing plant
- Operation of pilot plant for Li-ion battery recycling

TATA Consultancy Services

- Partners for driving advanced research and product design especially with respect to ADAS systems and connected car tech
  - EVs are expected to get more sophisticated in future, requiring dedicated design teams

TATA DIGITAL

- Tata Digital as a partner for building integrated digital platform across Tata companies to drive user experience and enable cross-selling of TML’s EV products
Stringent emission roadmap will necessitate EV adoption by OEMs

**Corridor for potential CO2 regulation**

- **2015**
  - China: 172
  - USA: 166
  - India: 135
  - EU: 130

- **2020**
  - China: 144
  - USA: 121
  - India: 113
  - EU: 105

- **2025**
  - China: 107
  - USA: 96
  - India: < 90
  - EU: 68-78

- **2030**
  - China: < 90
  - USA: ~80
  - India: ~70
  - EU: ~50

**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

**Govt. signalling corridor shift through steeper reduction in targets (105 g/km)**
**TCO parity with ICEs will further propel EV adoption**

### Total Cost of Ownership¹ B2B1 (with FAME subsidy)

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<th>FY24</th>
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<td>₹ 6.1</td>
<td>₹ 7.1</td>
<td>₹ 8.4</td>
</tr>
<tr>
<td>EVs vs CNG</td>
<td>₹ 1.1</td>
<td>₹ 0.1</td>
<td>₹ 1.0</td>
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**Value in ₹ lakh**

### Total Cost of Ownership² B2C2

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<tr>
<td>EVs vs Petrol</td>
<td>₹ 1.0</td>
<td>₹ 0.6</td>
<td>₹ 2.1</td>
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**Value in ₹ lakh**

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1) Vehicle life 4 years, annual running 50K, 90% financing @12% interest, Charging cost 7/kWh, Resale EV 30%, 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%
Customers options will increase as OEMs introduce long range EVs

**Upcoming EV models**

- FY21: 10
- FY22: 18
- FY23: 24
- FY24: 26

**Average on board energy**

- FY18-20: 16
- FY20-22: 30
- FY22-24: 40
Investments across the value chain will unlock charging infrastructure

**Value Chain**
- HW equipment provider
- Infrastructure owner
- Charging station operator
- Charging network provider
- OEM Dealerships
- Hyderabad Metro

**Outlook: Public Fast Chargers**
- CY21: ~1000
- CY24: 25-30K
- CY26: 45-50K