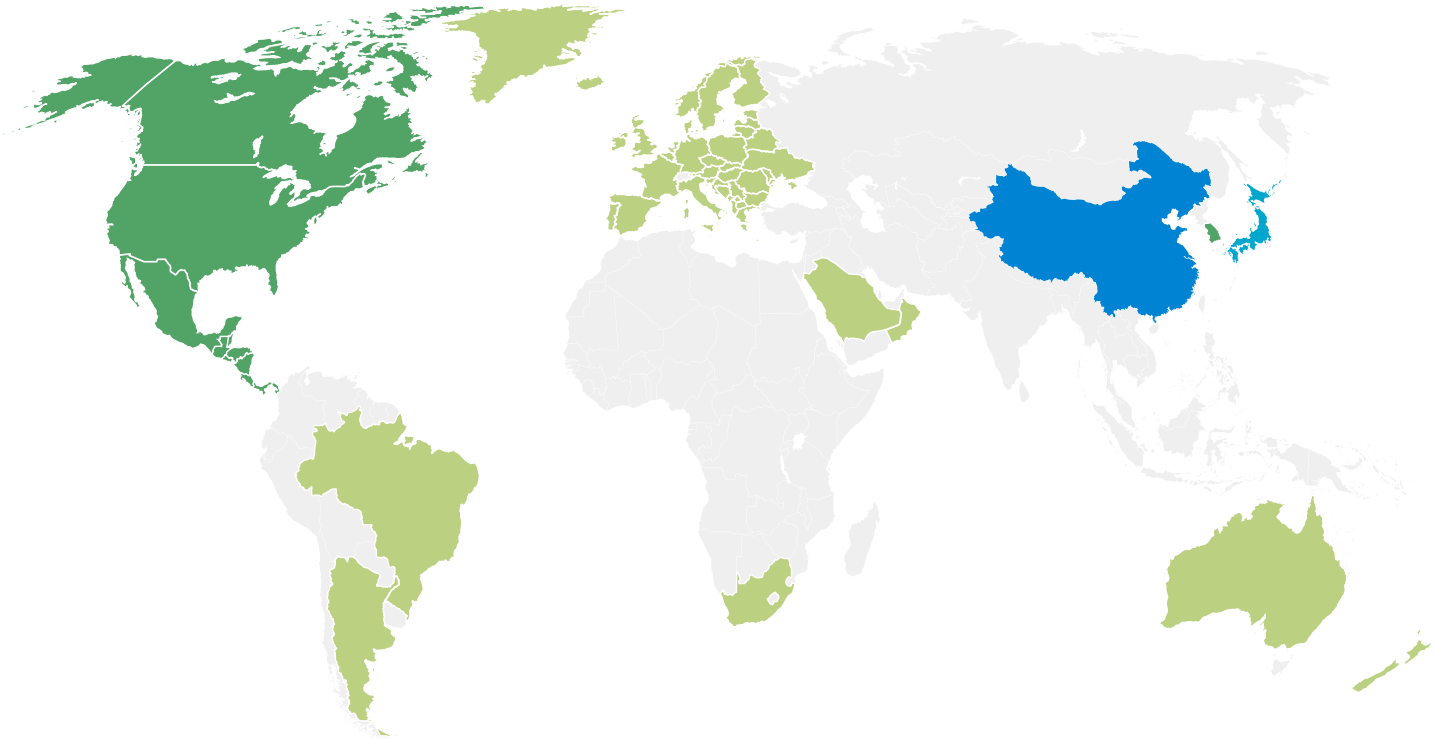
EXHIBIT 21

Region-wise EV charging standards



CCS 1

NORTH AMERICA & SOUTH KOREA

Tesla

USA

CCS 2

EUROPE
ARGENTINA
BRAZIL
SOUTH AFRICA
SAUDI ARABIA
OMAN
AUSTRALIA
NEW ZEALAND

GB/T CHINA

CHAdeMO JAPAN

EXHIBIT 22

EV charging standards summary

PARAMETER	SLOW CHARGERS		FAST CHARGERS	
LEVEL	Level 1	Level 2	Level 3	Level 3
AC OR DC	AC	AC/DC	AC	DC
POWER RANGE	<3.7 kW	3.7 – 22 kW	22 – 43.5 kW	<400 kW
MODE	Mode 1 and 2	Mode 3	Mode 3	Mode 4
TYPE	Domestic sockets	IEC Type 1 IEC Type 2	IEC Type 2 IEC Type 3	CCS Combo 1 & 2 CHAdeMO, GB/T DC and Tesla connector
PLACE OF USE	Home	Home/Public	Public	Public
VEHICLES	2W, 3W, Cars	2W, 3W, Cars	Cars and Buses	Cars and Buses
CUSTOMERS	OEM/Retail	OEM/Retail, Charging Operators	Charging Operators	Charging Operators

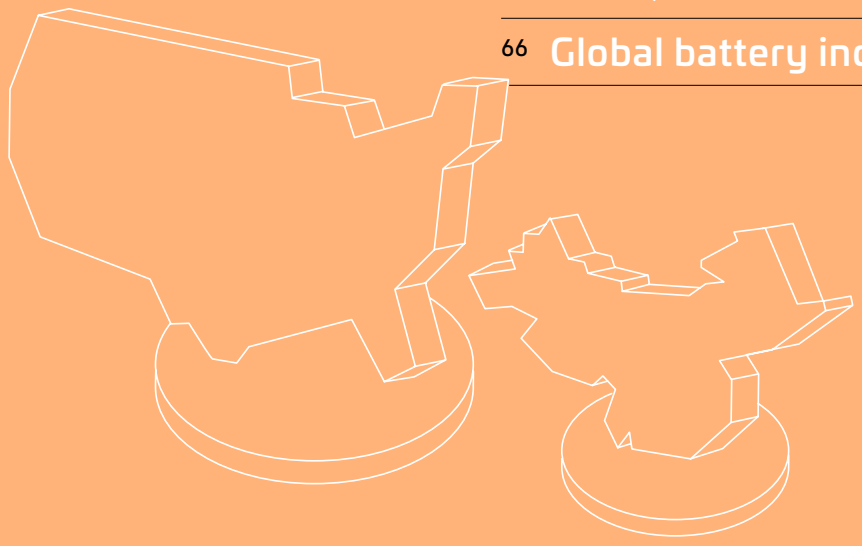
India's stance on EV Charging

India has still not formally adopted any specific charging standard. Over the years, the central government has tried to come up with guidelines to assist the charging ecosystem.

The government has been flexible around standards and OEMs have been making their choice independently. As the industry picks up and adoption increases, a formal charging standard might be adopted by the country.

03

Global EV Industry



Global EV Industry

Electric Vehicles — A common dream across the world

The first electric cars were developed in the early 1800s and after almost 200 years, Electric Vehicles are finally taking off at a global level. Global electric car parc (vehicles on road) crossed 7 million units in 2019 with annual sales crossing 2.2 million units. China has moved way ahead in the EV adoption race with a whopping 53% share of the global electric car sales in 2019. Europe and the USA are the next largest markets with 26% and 14% market share respectively. Norway, Iceland and Netherlands remain leaders in EV penetration with electric cars representing 56%, 25% and 14% respectively of their annual car sales.

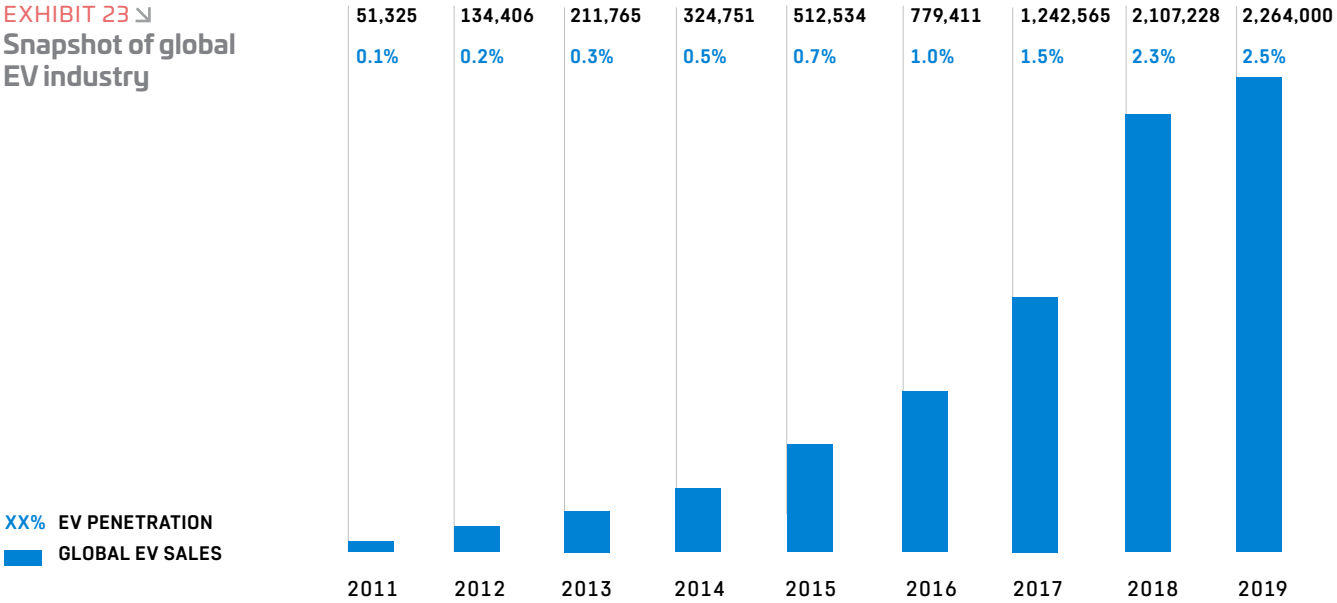
Tesla has been a game changer for electric vehicles. It changed the perception of EVs from just a green car that is good for the environment to an incredibly powerful and smart product. A large number of things have changed since Tesla entered the EV space. Government policy directions are clearer, and technology has reached a point where EVs are closer to TCO parity vs ICE vehicles. This has fuelled traction in large OEMs for developing EV platforms.

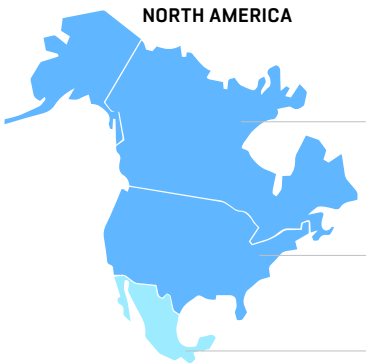
Tesla leads the EV sales chart with 367K units sold in 2019 - a 50% growth over 2018. BYD is the second largest player with 229K unit sales. BAIC, BMW, and Nissan are the other leading OEMs in the EV space currently. Tesla's Model 3 (13%), BAIC EU-Series (5%) and Nissan Leaf (3%) were the three top selling models of 2019.

SOURCE Statista, EVVolumes.com

EXHIBIT 23

Snapshot of global EV industry

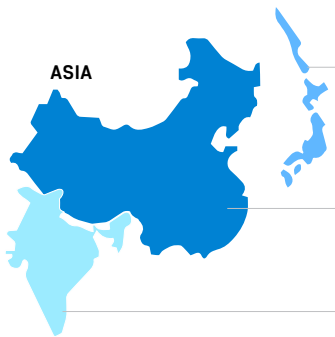




Canada
2.6% | 51

USA
2.0% | 329

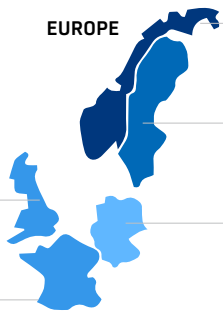
Mexico
0.01% | 2



Japan
0.8% | 44

China
4.7% | 1,196

India
0.1% | 3



Norway
56.0% | 80

Sweden
11.0% | 40

Germany
3.0% | 109

United Kingdom
2.7% | 67

France
2.8% | 62

EV sales penetration
LOW HIGH

EV sales penetration	EV sales (in'000 units)

Maps are not to scale
They are representational

EXHIBIT 24
Snapshot of key OEMs

OEM	GEOGRAPHIES PRESENT	KEY MODELS	2019 UNIT SALES (in 000)	TARGET
Tesla	US, Europe, China	Model 3, Model S, Model X	367	**2020** - 1 mn sales
BYD	China	Yuan, E series, Tang	229	**2025** - Global #1 player
BAIC	China	EU-Series, EC-Series, IX-Series	160	**2025** - 100% of its PV sales
SAIC	China	Baojun E-series, Roewe Ei5	134	**2025** - Electrify all models
BMW	Japan, US, China, Europe	i3, 530Le, 225xe Active Tourer	129	**2025** - 20% of its PV sales
Nissan	Japan, US, Europe	Leaf	82	**2025** - 1 mn sales
Volkswagen	US, China, Europe	e-Golf, Passat GTE	77	**2023** - 1 mn sales **2025** - 3 mn sales
Hyundai	S Korea, Europe	Ioniq, Kona	71	**2025** - 0.5 mn sales & 44 new models
Toyota	Japan	Prius PHEV	56	**2025** - 0.5 mn sales **2030** - 5 mn+ sales
Kia	S Korea, Europe	Nero EV, Nero PHEV	55	**2025** - 0.5 mn sales & 11 new models
Mitsubishi	Japan, Europe	Outlander PHEV	53	**2025** - 2 mn sales from JV platform
Renault	Europe	Zoe	48	**2022** - 12 new models
Volvo	Europe	XC60 T8 PHEV	42	**2025** - 50% of its PV sales
Chevrolet	S Korea, US	Chevy Bolt	35	**2023** - 20 new models **2026** - 1 mn sales
Daimler	Europe	E300e/de, Fortwo	23	**2025** - 20% of its PV sales
Audi (VW)	US, Europe	e-Tron	21	**2025** - 0.8 mn sales
Jaguar	US, Europe	i-Pace	17	**2025** - 100% of its PV sales
Honda	Japan	NA	NA	**2030** - 60%+ of its PV sales
Ford	US	Mustang Mach-E (Upcoming)	NA	**2025** - 6 models

Evolution of Key Markets

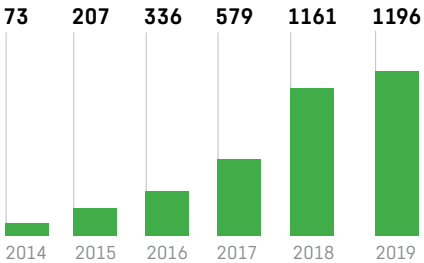
1 / CHINA

China is winning the Electric Vehicle race

China has outpaced the world in EV adoption by a huge margin. From just under 20,000 electric car sales in 2013, today, China represents 53% of the global electric car market with sales of 1.2 million units in 2019. A generous central subsidy program pumped in close to USD 60 billion into the electric vehicles ecosystem over the past decade. To put that number in context, India's FAME – II scheme's subsidy budget of USD 1.4 billion (over 3 years) is almost equal to the annual subsidy that China's largest EV manufacturer, BYD, receives from its government.

China's central subsidy program started in 2009 covering 10 cities and 1,000 electric cars. Since then, every year the program has expanded to provide a larger momentum to the industry. However, in 2019, subsidies were reduced for the first time. The subsidy structure is further supported by a variety of other policy initiatives.

EV SALES (in 000s)



INFRASTRUCTURE

270,000 +
EV Chargers

200 + GW
Battery Capacity

4.7 % 2019 EV Penetration

A /

Direct Subsidies —

I /

When the subsidies were launched way back in 2009, they offered benefits to the tune of USD 8,000 per vehicle which covered 30-50% of vehicle's cost. Initially, there were minimal technical/performance restrictions on vehicles to be eligible for subsidy. However, over the years, greater focus has been given to higher range vehicles.

II /

China was aiming to phase out subsidies from 2020. However, the changed subsidy structure has affected the Chinese EV industry in 2019. The EV sales in 2019 have grown by a mere 4% y-o-y compared to 62% y-o-y growth in 2018. Sales in the months of Sep-Nov 2019 were down by more than 30% y-o-y. However, the scenario slightly improved in Dec 2019, in which the EV sales decline was 22% y-o-y.

III /

Due to this decline, the government has decided to reduce the pace of subsidy cuts and has planned not to have any cuts in 2020.

EXHIBIT 25

EV sales in china y-o-y change in 2019

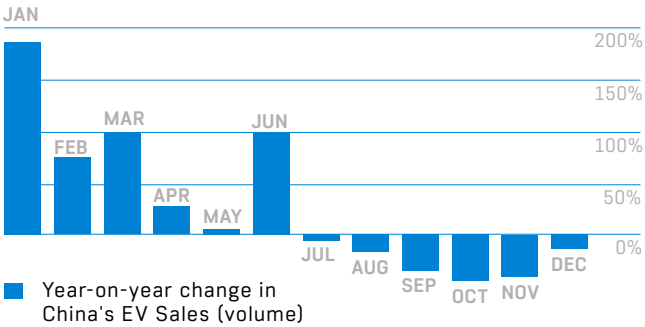
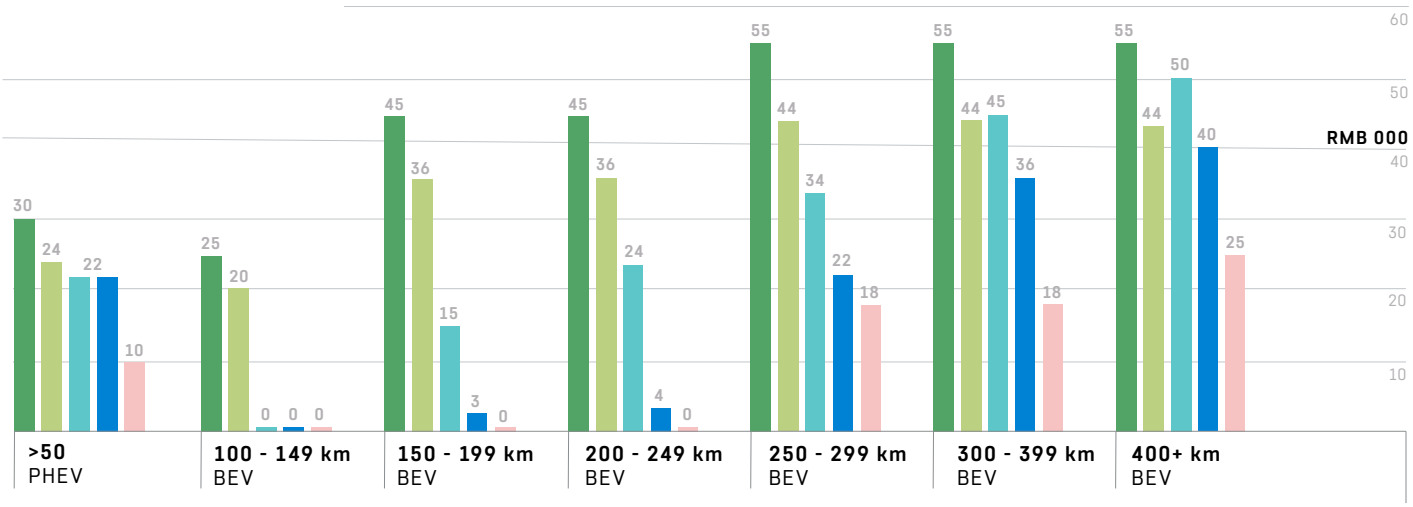


EXHIBIT 26

Changing subsidization criteria in China's NEV policy



B /

EV quota and CAFC —

The electric car quota policy requires automakers to generate EV credit points starting from 2019. Automakers are required to earn credit points from NEVs equivalent to 10% of the total vehicles produced in 2019, rising to 12% in 2020.

By 2020, they are required to meet the corporate average fuel consumption (CAFC) target of 5 litres per 100km.

Meeting these two policy guidelines necessitates the OEMs to achieve significant adoption of EVs into their overall sales.

D /

Focus on charging infrastructure —

China has put up massive charging infrastructure that is denser than all major (EV adopted) countries. China has 270K publicly accessible charging points (50% of the world), followed by the USA which has 55K points.

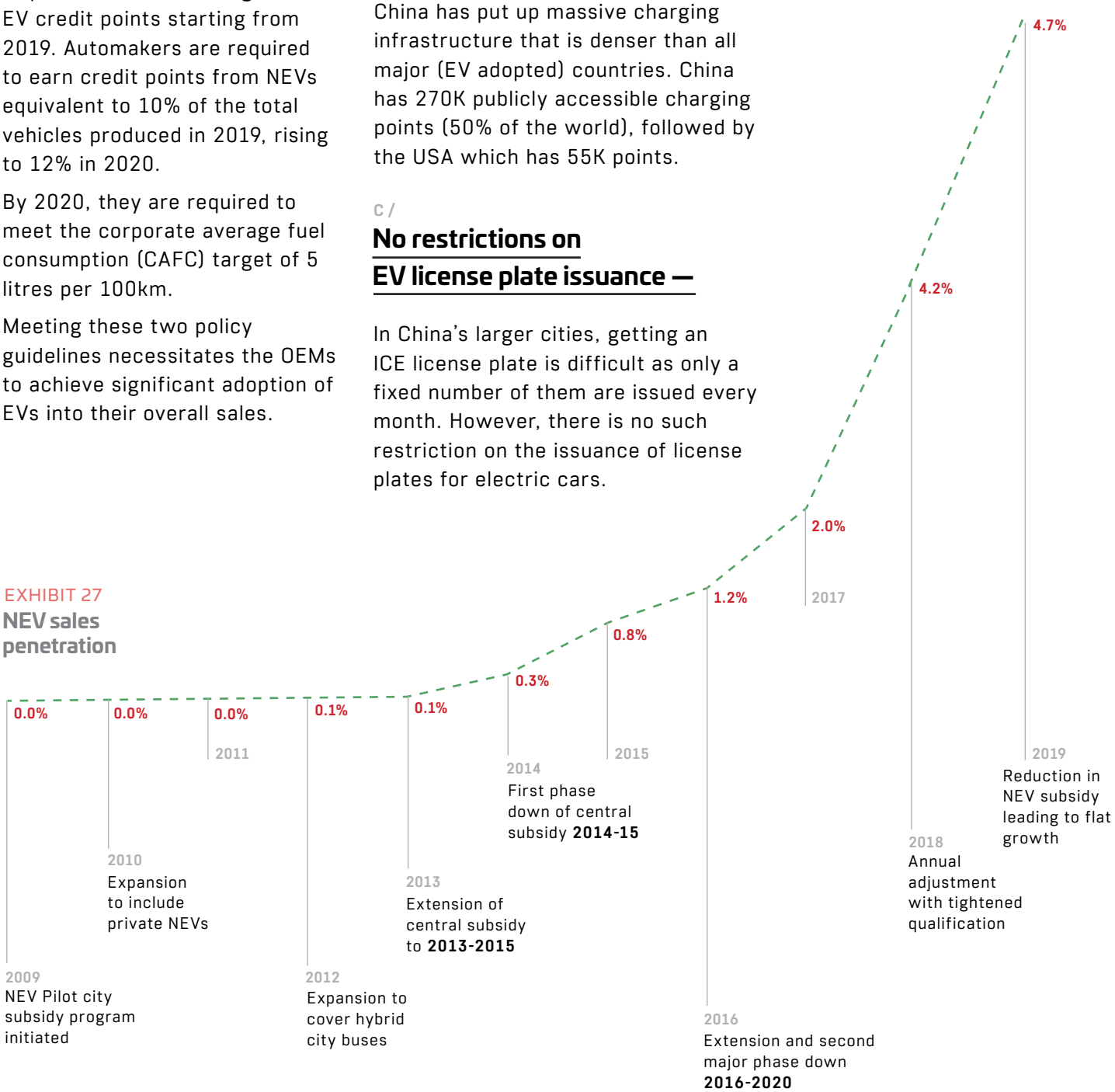
C /

No restrictions on EV license plate issuance —

In China's larger cities, getting an ICE license plate is difficult as only a fixed number of them are issued every month. However, there is no such restriction on the issuance of license plates for electric cars.

EXHIBIT 27

NEV sales penetration

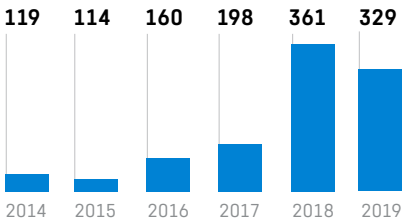


2 / UNITED STATES OF AMERICA

The USA is relatively lagging vis-à-vis the global transition to EVs

The USA was the earliest adopter of EVs. However, the pace of growth has been relatively slower in the USA and it is still lagging behind Europe and China in terms of pace of adoption. In 2019, a total of 359,000 BEVs and PHEVs were sold in the USA vs 590,000 in Europe and 1.2 million in China.

EV SALES (in 000s)



INFRASTRUCTURE

55,000 +
EV Chargers

50 + GW
Battery Capacity

2.0% 2019 EV Penetration

Some of the reasons for slower growth include

A /

The USA has lower fuel costs compared to China and European countries. Gasoline prices per gallon are about USD 0.8 cheaper compared to China and about USD 0.5 compared to several European countries.

B /

Several environmental norms set during the President Obama regime which were introduced to reduce the vehicular emmissions are being rolled back. The USA is also revoking the authority of California to set stricter environmental norms, which was one of the reasons for higher EV penetration in that area.

C /

The passenger car market in the USA has a relatively higher proportion of large cars like trucks, SUVs, etc. There are very few options for EVs in these segments. Additionally, it is more difficult to achieve TCO parity in these segment.

However, due to efforts by a few specific state governments, the USA market has higher adoption of electric vehicles in a few places like Seattle, Portland, San Jose, etc. There is a direct correlation between incentives and EV penetration in the USA states. The incentive across states is not equal, which can be seen in the varying EV penetration across states. California is the largest EV market in the USA. Apart from providing highest incentives which range from USD 2,500 to USD 7,000, it has taken several other steps like access to the HOV (High-occupancy vehicle lane) and discounts on recharging. The USA also have a federal program which offers tax credit up to USD 7,500 on the purchase of PEVs (but limited to 200,000 units per OEM)

The price of top selling EV models in the USA range from USD 33,000 to 90,000. In that context, it is a very different market as compared to China or India.

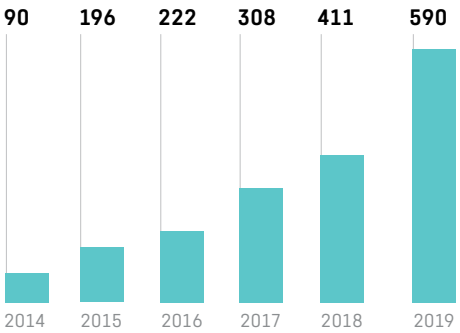
3 / EUROPE

The European Electric Vehicle market is amped up and on the rise

Sales of new electric road vehicles have been growing significantly in recent years, largely driven by the mass expansion of this mode of transport. Despite its rapid growth, the EU market for such vehicles is still small and largely dependent on support policies. Most electric road vehicles are concentrated in a few northern and western EU member states, although southern and eastern ones have recently recorded the highest sales growth.

Europe hosts the countries with the largest penetration of electric car sales. Norway approached 56% in 2019, more than 2x the next highest country, Iceland (25%) and 3x the Netherlands, which has the third-highest (14%). In terms of sales volumes, Norway is followed by Germany, the United Kingdom, France, Denmark and the Netherlands.

EV SALES (in 000)



INFRASTRUCTURE

125,000 +
EV Chargers

20 + GW
Battery Capacity

3.6 % 2019 EV Penetration

Over the years, the European countries have taken various policy measures and have provided incentives to push adoption of EVs.

A /

Additional taxes on conventional vehicles

In several countries, the governments have provided large scale incentives and subsidies to EV purchasers, at the expense of ICE vehicle owners in the form of higher taxes, fees, tolls and parking fees to bring the ownership cost lower than ICE vehicles.

To put things into perspective, a Volkswagen Golf costs EUR 31,000 (which includes EUR 11,000 in taxes) vs e-Golf which costs EUR 27,000.

B /

Policies to ban diesel vehicles implemented by various countries

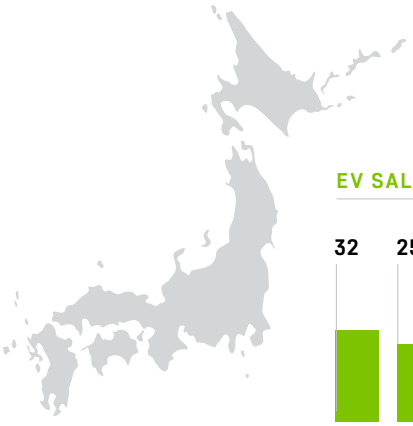
Most countries in Europe like Norway, the UK, France, the Netherlands and a few others have set dates (in the next two decades) to ban conventional ICE vehicles. Germany has already given permissions to individual cities to ban diesel vehicles.

These steps are leading to higher deliberation by people during car purchases and higher EV adoption.

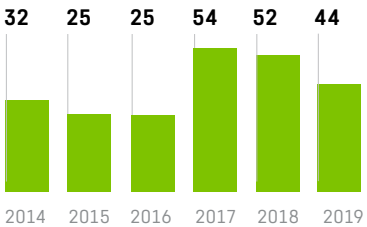
4 / JAPAN

The earliest adopter of technology, switching from Hybrid to Pure EV

Japan was one of the earliest adopters of EVs. Due to the dearth of oil, Japan took early steps in incentivising the plug-in vehicle. The Japanese dominated the electric hybrid car market with Toyota Prius, the highest selling low-emission car till today. Nissan Leaf has now taken the baton and dominates the domestic EV market.



EV SALES (in 000)



INFRASTRUCTURE

30,000 +
EV Chargers

25 + GW
Battery Capacity

0.8 % 2019 EV Penetration

A /

Strong focus on Hydrogen economy

Japan is promoting Hydrogen economy in a big way. Availability of non-fossil electricity makes the proposition very attractive for Japan. Toyota Mirai is the top selling fuel cell car in the world. Toyota launched the Mirai sedan at the end of 2014 but has only sold around 10,000 units globally.

High costs of vehicles and high capital investments required for setting up refuelling stations are major deterrents in the adoption of fuel cell vehicles. However, the picture might change rapidly once the technology reaches maturity in fuel cell design.

B /

TCO gap has been a huge barrier for growth

Consumers in Japan are driven by economics and the TCO gap has prevented them from mass adoption of electric vehicles. However, smaller and compact EVs with lower TCO gap are trending in Japan and the market leader, Nissan, is also ready to launch a smaller electric vehicle called the Nissan IMk in the near future.

C /

The best charging ecosystem compared to any other country

Japan's network of EV-charging infrastructure is far superior to other EV markets — there are more battery recharge points than petrol stations across the country, with further plans to install fast chargers every 15 km along the highway or within every 30 km radius.

D /

Continuous policy support by the government

The government's continuous support in policymaking has spurred the growth of the country's EV market share. Currently, the government grants one-time subsidy at the rate of USD 100/ KWh of the battery size of the vehicle. Japan has also pledged to switch to emission-free vehicles completely by 2050.

Global Battery Industry

The rise of electric vehicles has caused upheaval in the Lithium ion battery industry. As of 2018, the global Li-ion battery manufacturing capacity was about 330 GWh per annum. A large part of this capacity is currently concentrated in China.

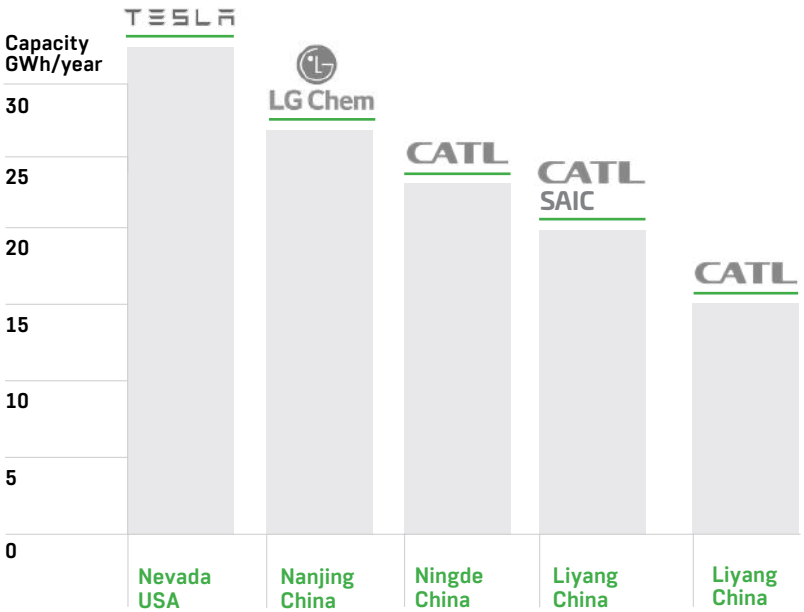
The Li-ion battery industry is dominated by five companies – Panasonic, CATL, LG Chem, Samsung and BYD. Battery mega factories are coming up at a phenomenal rate. There are now close to 115 announced mega factories in the pipeline, with over 2,000 GWh per annum of capacity in the industry's pipeline for 2028.

While the underlying cell technology itself requires massive capital and time commitment from companies, two other critical factors for battery companies are —

A / Scale
B / Raw Material Supply Security

EXHIBIT 28

Top 5 Li-ion battery gigafactores by capacity



Top countries/regions (by installed capacity)

CHINA	220 GWh
UNITED STATES	50 GWh
JAPAN / S KOREA	40 GWh
EUROPE	20 GWh

Top manufacturers (market share)

PANASONIC	22 %
CATL	14 %
LG CHEM	14 %
SAMSUNG	10%

A /

Scale — Go big or go home

The scale of operations plays an important rolein battery manufacturing economics. A large gigafactory can offer 20% of material cost benefits as compared to a small sub-gigawatt battery manufacturing set-up.

Currently, a large scale battery manufacturing plant takes anywhere between USD 60-100 mn/ GWh of capital expenditure. The exact expenditure varies depending on choices related to machinery and other process decisions.

Over the years, the battery industry has witnessed improved capital expenditure efficiencies. This has led to

A / Technological developments in cell chemistries and manufacturing process

B / Higher automation in manufacturing as the scale has built up

The capital expenditure efficiency is expected to further improve and reach sub USD 50 mn/GWh by FY25.

B /

Raw Material Supply — Long term partnerships for security and economics

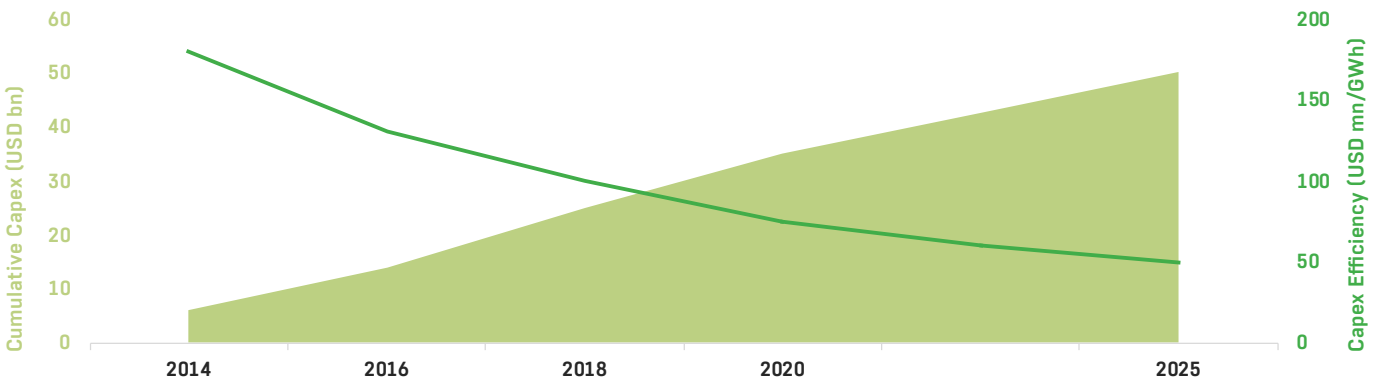
Raw materials, especially Lithium and Cobalt are scarce, concentrated in a few countries and controlled by a few companies. The supply-demand equilibrium is relatively unstable and prices can move quickly. Hence, it is critical for battery manufacturers to establish a strong supply chain, preferably through long term partnerships.

A classic example of long term partnerships in the battery space is that of Tesla and Panasonic. This partnership uses the core competencies of both companies to produce some of the best batteries in the world at costs that are amongst the lowest in the industry. Through strategic sourcing, Tesla has managed to create 10% cost benefits vis-à-vis other competitors.

One of the key reasons behind China's thriving battery industry is its access to Lithium and Cobalt, which has been achieved not only through domestic production but also through partnerships with various countries and companies.

EXHIBIT 29 ↘

Capex trend in Li-ion battery industry



Batteries – Insourcing vs Outsourcing by OEMs

The battery constitutes 40% of the vehicle cost, making it the single largest cost component in an EV. For an OEM, the battery sourcing strategy is an extremely critical decision. Apart from being the single largest cost component, batteries are critical for performance – Range, Power, Life, Safety, and Charging Time. Hence, a tight control over battery sourcing is important. The importance of the battery is so high in an EV that it makes one believe that car manufacturers will have to insource the battery manufacturing in order to stay relevant in the market.

However, a large part of the market prefers to outsource the batteries. This is mainly because of two reasons —

A / Most OEMs do not have the scale that economical battery production demands

B / Cell technology development is cost intensive and evolving rapidly. Hence getting into cell manufacturing does not fit into the risk profile that aligns with the business model of OEMs

The outsourcing models have been different but a majority of the market has opted for it in some way or the other.

Battery manufacturer, BYD forward integrated into making vehicles and is now the #2 electric car manufacturer by volumes.

Tesla got into a JV with Panasonic to produce batteries. In the future, more such completely insourced business models could come up but the likelihood of traditional OEMs getting into battery pack manufacturing including cells, is low.

EXHIBIT 30

5 key battery sourcing strategies adopted by OEMs

1 / BYD AUTO

Captive end-to-end production by OEMs

OEMs manufacture batteries in-house including cells

2 / MAHINDRA

Captive pack production by OEMs

OEMs procure cells and manufacture battery packs in-house

3 / NISSAN

Supply by cell companies

Cell companies forward integrating into battery pack and supplying to OEMs

4 / TESLA

Co-developed between cell companies and OEMs

OEMs strategically tie-up with cell companies to manufacture batteries

5 / DAIMLER

Supply by battery pack manufacturing companies

Pack manufacturers procure cells from cell vendors and assemble battery packs with BMS to meet OEM requirements

EXHIBIT 31

Key battery suppliers for top OEMs

GLOBAL BATTERY COMPANIES	SDI	LGC	SKI	PANA-SONIC	AESC	CATL	BYD
Non-Chinese OEMS							
TESLA				^			
VW	^	^				^	
GM		^					
BMW	^					^	
AUDI	^	^					
NISSAN		^			^		
FORD		^					
DAIMLER		^		^		^	
VOLVO		^					
RENAULT		^			^		
HMC/KIA	^		^				
FIAT/ CHRYSLER	^						
Chinese OEMS							
BYD							^
BAIC			^			^	
GEELY						^	
BAIC BJEV						^	

04

Where does India stand amidst the electric disruption of automotive industry?

Where does India stand amidst the electric disruption of automotive industry ?

India's EV ambitions started taking shape with the introduction of the National Electric Mobility Mission Plan (NEMMP) in 2013. The plan underlined an ambition to have 6-7 million EVs on the road by 2020. Today, in 2020, while the number of EVs on the road are far lesser than what the policy envisaged, the enthusiasm created by electric vehicles in India is significant.

A large number of start-ups have come up in this space in various parts of the ecosystem – OEMs, component manufacturers, charge point operators and other service providers. Established players have laid down their EV strategies and large investments have been committed. Policy makers are looking at EVs as a potential solution to India's pollution problem. After spending INR 5.3 billion through FAME-I, the government has announced FAME-II with a total outlay of INR 100 billion. Consumers are increasingly becoming educated towards EVs and TCO logic. They are willing to go electric for a good product, even if it is at a slightly higher price.

EV adoption, in India, was largely restricted to 2W/ 3W so far. Despite challenging economics, the 4W segment has started showing an uptick in adoption. Two premium EV variants were launched in 2019 – Kona (Hyundai) and ZS (MG Motor). ZS received close to 3,000 bookings in its first month of launch - more than the total electric cars sold in India in nine months prior to that. Tata Motors' electric Nexon comes with an attractive combination of performance and mid-range pricing. The light commercial vehicle segment is also being explored for electrification.

Investors are actively looking at the EV space as the next big opportunity to create value. Close to USD 700 million of capital has been raised in this space in India. A number of businesses are trying to leverage electric mobility to create value. Electric shared mobility is one such example.

With falling battery prices, the economic argument against EVs is rapidly weakening. The policy support is strong. OEMs have started taking bets on the EV space. Domestic ancillary industry, especially the battery pack manufacturing industry, has started taking shape. With all these fast-evolving changes, India stands at an inflection point of EV adoption.

EV policy makers in India have taken a clear direction but implementation lacks momentum

Policy directive is central to how fast and sustainable the electrification of vehicles in India shall be. Almost a decade after MNRE EV subsidies, policy makers in India have set a clear direction for the EV ambitions of the country through FAME-II. Seeds of FAME were sown in the form of National Electric Mobility Mission Plan 2020 which was set out in 2013. FAME-I which was launched in 2015 created momentum in the market and now there is a tangible ecosystem established in India. FAME-II has taken bolder steps and clearly highlights the governments intent for promoting EVs.

MNRE
2010

A portion of Ministry of New and Renewable Energy's subsidy was extended to electric vehicles

NEMMP 2020
2013

INR 200 billion investment to deploy 6-7 million electric vehicles in India

FAME - I
2015

Launched to fast track the goals of NEMMP 2020; INR 8,950 million planned outlay mainly through subsidies

FAME - II
2019

Extension of FAME - I; INR 100 billion investments planned over FY20 - 22

FAME - I

FAME – Faster Adoption and Manufacturing of Electric (and hybrid) Vehicles was launched as part of NEMMP in 2015. It was initially launched with a total outlay of INR 8.0 billion over a period of 2 years. Eventually, the scheme was extended till 2019 and the total outlay was increased to INR 9.0 billion. However, the total fund utilization was only INR 5.3 billion out of which INR 3.4 billion was towards vehicle subsidies.

In addition to the direct subsidies, grants were sanctioned for specific projects under pilot projects, R&D/technology development and public charging infrastructure components under the scheme. 465 buses were sanctioned to various cities/states under this scheme. A total of 0.3 million vehicles were supported with subsidy as part of FAME-I.

The impact of FAME-I went beyond the actual numbers and it managed to create a significant buzz in the industry. During this scheme, the awareness about EVs increased significantly - both amongst customers and the industry players. The early foundation of India's EV ecosystem was built during this period and FAME-II, which was announced in March 2019, aims to leverage this foundation to create a platform for the EV industry to truly take off.

EXHIBIT 32
FAME - I Summary

2015 - 2019

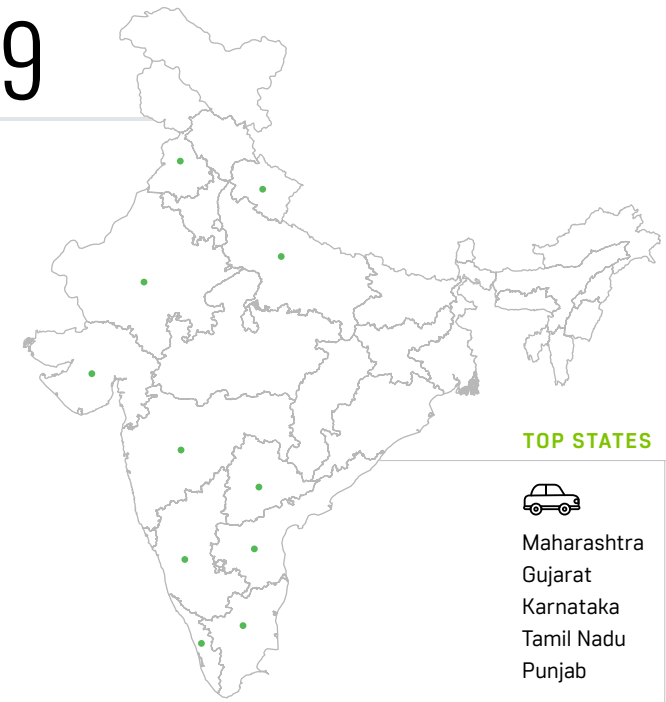
OEMS REGISTERED

7 | **18** | **4**

OUTLAY
INR **9.0** bn

UTILIZATION
INR **5.3** bn

SUBSIDY UTILIZATION BY VEHICLE TYPE
INR **3.4** bn



TOP STATES

Maharashtra	Rajasthan
Gujarat	Haryana
Karnataka	Uttar Pradesh
Tamil Nadu	Maharashtra
Punjab	Gujarat
	Uttarakhand

FAME - II

FAME-II clearly underlines the fact that the policy is directed towards rapid EV adoption. The scale of the program, even though small in context of the overall automobile industry, is encouraging. Good implementation with maximum fund utilization would help the EV industry cross the inflection point and register disruptive growth from FY22 onwards.

Break - up of demand incentives under FAME - II

- INR **15 Billion** / FY20
- INR **50 Billion** / FY21
- INR **35 Billion** / FY22

Planned Outlay of INR 100 Billion

1 /
DEMAND INCENTIVE

An upfront reduction in purchase price of the eligible vehicle, which will be a compensated to OEMs by the government

Strong focus on promoting electric vehicles for public transport

2 /
CHARGING INFRASTRUCTURE

2,700 charging stations; One charging station every 3km in select cities

Government to provide support to set up charging infrastructure

One slow charger for every e-bus purchased and one fast charger for every 10 e-buses purchased

Demand Incentives —

A large portion of the FAME-II scheme is to promote EV adoption through direct subsidies. The scheme is offering subsidy at around INR 10,000/kWh/vehicle for all vehicles except buses and trucks. For buses and trucks, the subsidy is around INR 20,000/kWh/vehicle.

FAME-II introduced a number of changes in the eligibility criteria to avail the subsidy. In FAME-II, subsidy is linked to the battery size rather than to the vehicle type. Minimum speed and range were introduced as criteria to encourage adoption of higher performance vehicles. While the policy's objective for promoting higher specification vehicles seems to be in the right direction from a long term perspective, it doesn't seem to be in sync with the current market demand. This is especially true for the 2W segment which

A / Constitutes the largest part of the market

B / Is the fastest growing segment in terms of adoption

Due to the range and speed criteria – subsidies are applicable only to high specifications e-2Ws which form a small part of the market. This mismatch between the market demand and the policy's vision is evident from the fact that only around 15,000 e-2Ws availed the FAME-II subsidy in FY20 while the total subsidy pool covers 1 million vehicles over a three year period. In general, the Indian ICE 2W market is dominated by low to mid-price vehicles; 90%+ of the ICE 2W market still buys products that are in the price range of INR 40K to 90K, which corresponds to the low/medium speed EV category – which is not eligible for the subsidies. For the policy objective of encouraging higher specification e-2W, the vehicle cost itself needs to come down. That will happen as the battery prices come down in the future. In the near term, extension of subsidies to lower specification e-2W can be beneficial for higher industry adoption.

EXHIBIT 33

Break - up of demand incentives under FAME - II

CATEGORY	PRICE CAP (INR)	NO. OF VEHICLES TO BE SUBSIDIZED	SUBSIDY (INR/kWh)	
2W	0.15 mn	1,000,000	10,000	Subsidies are capped at 40% of cost for buses and 20% of the cost for others
3W	0.5 mn	500,000	10,000	
4W - BEVs	1.5 mn	35,000	10,000	Subsidies are limited to EVs using advanced Li-battery and newer technologies only
4W - HYBRIDS	-	20,000	10,000	
BUS	20 mn	7,090	20,000	

Charging Infrastructure —

FAME-II also provides for setting up public charging infrastructure. The broader objective is to set up 2,700 charging stations in metros, cities with a million plus population and highways. In addition, there is a provision for one slow charger to be provided to a buyer for every e-bus purchased and one fast charger for every 10 e-buses purchased.

1 /
PHASED MANUFACTURING PROGRAM

Along with FAME-II, the policy has also taken concrete steps that further highlight the strong intentions to facilitate rapid EV adoption in India. In order to promote localization of the EV supply chain, the government has put in place the Phased Manufacturing Program (PMP). At an initial stage, the program has specified the basic customs duty structure to encourage domestic manufacturing of EV related components. The table below summarizes basic customs duty changes for various components.

EXHIBIT 34
Proposed custom duty structure under PMP

DESCRIPTION	VEHICLE TYPE	CURRENT BCD	PROPOSED BCD	PROPOSED DATE OF PMP
CBU	Bus & Trucks	25%	50%	
SKD	PV & 3W	15%	30%	April 2020 onwards
	2W		25%	
	BUS		25%	
	Trucks		25%	
CKD	Bus	10%	15%	
	PV			
	2W			
	3W & Trucks			
Lithium ion cells for use in manufacture of Lithium ion accumulator for EVs		5%	10%	April 2021 onwards
Battery packs for use in the manufacture of EVs		5%	15%	
Parts used in the manufacture of EVs like AMC charger, AC/DC motor, AC/DC motor controller. Power Control Unit (Inverter, AC/DC Converter, Condenser), Energy monitor, Contactor, Brake system for recovering, Electric compressor		0%	15%	April 2021 onwards

In a revision to the original PMP, the policy has further specified the requirements of component indigenization in order to take benefit of FAME-II. The table summarizes key components and target dates for domestic sourcing for different vehicle categories.

EXHIBIT 35

Localization timelines under PMP for key components

KEY COMPONENTS	2W/3W	4W/BUSES
CHASSIS	July 19	April 19
MOTOR CONTROLLERS	April 20	April 21
EV MOTOR	April 20	April 21
ON-BOARD CHARGER	April 20	April 20
BATTERY PACK (ASSEMBLY)	April 19	April 19
AC TYPE 2 CHARGING INLET	NA	April 20
DC CHARGING INLET (CCS2/CHAdeMO)	NA	October 20

2 / E-BUS PROCUREMENT

In June 2019, the government invited EOIs from STUs, municipal corporations and other public transport entities with an objective of deploying 5,000 e-buses. The key objective of the scheme was to reduce vehicular pollution in cities and hence, it was limited to large cities with population of over 1 million, smart cities, satellite towns connected to metros, etc. The structure of the scheme is very interesting.

Under the program, private operators (currently, mostly comprising of OEMs) have to operate the buses on a gross cost contract (GCC) basis. The operators will provide buses, run them and create supporting charging infrastructure. The STUs will provide a minimum operational distance per bus over the contract period. STUs had to submit proposals to DHI for operating e-buses. 86 proposals for 14,988 buses were received from which 64 cities have been sanctioned 5,595 e-buses.

The selection took into account various parameters like road tax structures, EV policies, pollution levels, charging infrastructure, vehicle density, etc. Final allotment of e-buses was done by ranking the qualified cities by the weighted average of total assured km per bus during the entire period of contract.

The STUs are now in process of tendering and operator selection is ongoing. As per the update in January, 2020, 30 cities have awarded 2,000 e-buses to operators and bidding is underway in 20 cities for 1,900 buses. PMI Foton and Olectra BYD have bagged the largest orders so far with 750 and 600 buses respectively. The GCC contracts depending on specific use cases are being bid in the range of 55-85 INR/Km. The FAME-II subsidy covers 10-15 INR/Km.

3 / GST BENEFITS & TAX INCENTIVES

Through the 2019 fiscal budget, the government has launched new incentives to promote EV adoption. The GST on Electric Vehicles has been reduced to 5% from 12%, while GST on ICE vehicles continues to be 28%. INR 150,000 tax benefit is available on the interest paid towards a vehicle loan for an EV.

State Policies — States with draft or adopted EV policies

1 / ANDHRA PRADESH

Focus on promoting gigafactory establishments (10 GWh+)

100% electrification of APSRTC bus fleet in 4 cities by 2025 and whole state by 2029

2 / BIHAR

100% electrification of paddling rickshaws by 2022

Fast charging station every 50 Km on highways

3 / DELHI

25% of new vehicles registered from the year 2023 to be EVs

Target of running 50% e-buses in Delhi by 2023

4 / KERALA

1 mn EVs by 2022 and 6,000 e-buses by 2025

Provision of viability gap funding for e-buses and government fleets

5 / KARNATAKA

Interest-free loans on the net SGST for EV manufacturing enterprises

Investment subsidy for setting up the first 100 charging stations

6 / MADHYA PRADESH

25% of new vehicle registrations in public transport to be EVs by 2026

7 / MAHARASHTRA

Increase the number of EVs to 0.5 mn and attract an investment of INR 250 bn in EV manufacturing and component manufacturing

Subsidies for e-buses and retail 4W customers

8 / PUNJAB

25% of annual registrations to be EVs in 5 years

9 / TAMIL NADU

Reimbursement of SGST, 15% capital subsidy on intermediate products, electricity tax exemption

100% stamp duty exemption for transactions related to EV manufacturing, 15% land subsidy (50% in select districts)

10 / TELANGANA

25% electrification of buses by 2022, 50% by 2025 and 100% by 2030

Focus on attracting investments especially, in Li-ion cell manufacturing

11 / UTTARAKHAND

100% electrification of public transport, shared mobility and goods transport in five priority cities by 2030

12 / UTTAR PRADESH

200K charging stations by 2024 and 1 mn EVs on the road in all categories and 70% electric vehicles in public transport by 2030

Subsidies to promote capex, exemption from stamp duty and electricity duty, SGST reimbursement

SOURCE

State Policy Drafts, TransportPolicy.net, EV-Ready India - White Paper by Ola

OEMs are gathering momentum

FAME-I was instrumental in creating early interest within OEMs. With FAME-II coming into action and the heightened buzz in the market, OEM interest in the EV space has rapidly increased.

The 2W category has seen the largest activity with more than 15 e-2W manufacturers currently operating in the country.

EXHIBIT 36

2W

	KEY MODELS	PRICE (000 INR^)	BATTERY	RANGE (Km *)	TOP SPEED (Km/hr)	KEY HIGHLIGHTS
HERO ELECTRIC	Flash E2	50	Li	65	25	Sales of 50K in FY20; #1 player in India
	Optima E2	57	Li	60	45	Invested by OAKS (Formerly Alpha Capital)
	Nyx ER	70	Li	100	42	Pan-India dealer network of 500 dealers
AMPERE	Zeal	70	Li	70	50	Sales of ~19K in FY20
	Reo -Li	45	Li	55	25	Invested by Greaves Cotton
	V-48	37	Li	55	25	
OKINAWA	I-Praise+	109	Li	160	60	Sales of 1,440 mn in FY19
	Lite	60	Li	50	25	300+ Dealerships
	Ridge+	73	Li	100	55	
ATHER	Ather 450X	149	Li	85	80	Invested by Hero MotoCorp, Sachin Bansal, Tiger Global
REVOLT	RE300	118	Li	80	65	No.1 player in e-motorcycles segment
	RE400	138	Li	85	80	
BAJAJ	Chetak	115	Li	95	80	Bajaj created an EV division - Urbanite
TVS	iQube	115	Li	75	78	Launched in Bengaluru, to be expanded in phases

3W

In the 3W category, the e-rick category has been a positive surprise, even while many of the large ICE auto OEMs are yet to launch their EV models. There are close to 0.7 million e-ricks annually sold in the country today with a large number of them being sold by the unorganized players. The majority of e-ricks are still based on Lead Acid batteries but that landscape is expected to evolve rapidly in favour of Li-ion batteries over the next 2-3 years.

EXHIBIT 37

OEM	KEY MODELS	PRICE (000 INR^)	BATTERY	RANGE (Km *)	TOP SPEED (Km/hr)	KEY HIGHLIGHTS
MAHINDRA ELECTRIC	Treo	270	Li	130	45	Mahindra & Mahindra susidiary
	Treo Yaari	170	Li	100	25	No. 1 player in electric 3W segment
KINETIC GREEN	Kinetic DX	140	Pb	60	25	Venture of Firodia Group
	Kinetic Safar Smart	190	Li	60	25	
	Kinetic Safar Shakti	150	Li	60	25	
LOHIA	Comfort DLX	140	Pb	100	25	Delhi based group with interest in diesel 3Ws, e-ricks and e-2Ws
	Hamrahi	130	Pb	75	25	
PIAGGIO	Ape E-City	200	Li	80	60	To invest INR 3,000 mn in next 3 years
BAJAJ / TVS						Under development, yet to launch