

KARNATAKA EV PARK

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GOVERNMENT OF KARNATAKA



KARNATAKA ELECTRIC VEHICLES
MANUFACTURERS & DEALERS
ASSOCIATION

Preamble



With the advent of clean technology and high-density energy storage solutions, a shift to a cleaner transportation is inevitable and Electric Vehicles are no doubt the future of mobility.

The advent of new breakthroughs and improvements in energy storage is transforming vehicular technology and energy solutions. Electric Vehicles (EVs) are a promising alternative to ICE (Internal Combustion Engine) vehicles.

Innovations in battery technology, reduction in moving parts, and zero tailpipe emissions make EVs an economically viable and sustainable mobility solution that is finding global support from Policymakers and Industry leaders alike.

Energy Storage Solutions (ESS) provide alternative to energy backup for home, enterprises & businesses, and are ideal for integrating renewable energy into the electricity grid.

- The Government of India (GOI) has launched the National Mission on “Transformative Mobility and Energy Storage” committed to develop a complete ecosystem domestically around EVs, including manufacturing of batteries and all other components to make Electric Vehicle and Energy Storage Solutions sector competitive in the near term.
- India is committed to reducing emissions up to 33-35% by 2030 from the 2005 level and has set the target of 40% non-fossil-based electricity generation in the energy mix.
- According to data compiled by IESA, the electric vehicle industry consumed over 5 GWh of batteries in 2018 in India. This number is likely to be over 36 GWh by 2025.
- During 2020-2027 period, the EV sector is estimated to consume about 250 GWh of batteries.

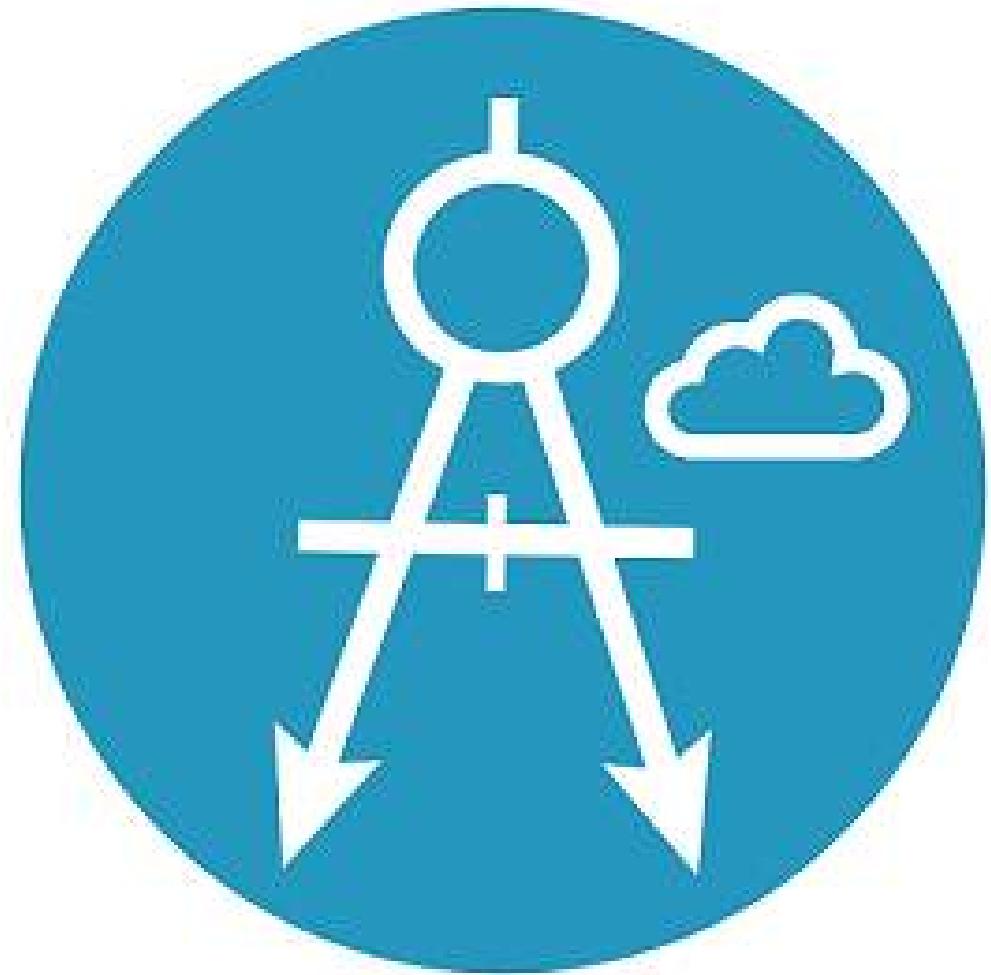
ELECTRIC VEHICLES





PROPOSAL FOR KARNATAKA STATE EV PARK

Vision



- To make KA EV PARK, a leading manufacturers hub and exporters of eco-friendly two, three, four wheelers and contribute towards the society with absolutely zero-emission vehicles.
- KA EV PARK continuously will be in the process of developing new technologies that overcome the daily challenges and meet our investors & industry needs.
- KA EV PARK also aim to achieve the best in class technology and achieve investors trust to create world class eco system.



Mission

- a) To make the State an attractive investment destination for this sector

- a) To promote R&D and manufacturing in Electric Vehicle & Energy Storage Systems' sector

- a) To ensure faster adoption of Electric Vehicles & Energy Storage Systems in the State

- a) To achieve substantial reduction in total cost of transportation for personal and commercial purposes, supported by a world-class infrastructure manufacturing facility for the investors hub





KA EV Park Objectives

KA EV Park Objectives

01



PREFERRED DESTINATION IN SOUTH INDIA

Make KA EV PARK the preferred destination for Electric Vehicle, ESS and component manufacturing.

02



REDUCE THE COST OF MOBILITY

To reduce the total cost of mobility by increasing the adoption of Electric Vehicles in public transportation, 2 & 3, 4 wheelers, Light Commercial Vehicles & Shared Transportation

03



RENEWALBE ENERGY

Promoting a shift from dependence on fossil fuels which are mostly imported and expensive with unreliable supply during times of crisis, to reliable domestically produced renewable energy which is less expensive.

04



INVESTMENTS HUB

To make KA EVE PARK a major base for EV & ESS sectors and to attract investments .

05



EMPLOYMENT GENERATION HUB

Create employment for 1,00,000 persons by year 2030 through EVs in shared mobility, charging infrastructure development and EV & ESS manufacturing activities.

06



BATTERY MANUFACTURING

Generate demand for battery storage solutions by driving EV adoption incentives and supply side incentives for battery manufacturing.

07



SELF EMPLOYMENT – EV CHARGING BUSINESS

To proactively support creation of EV charging Infrastructure in the initial phase and eventually create market for commercially viable EV Charging business.

08



RECYCLE HUB

Promote Recycle and Cascading of Batteries



09



GLOBAL HUB WITH R & D FACILITY

Develop KA EV PARK as a global center for cutting-edge research and innovation in Electric vehicles, battery technologies and other emerging technologies such as Autonomous/Connected vehicles.

BODY BUILDING HUB

100% INDIGENOUS BODY BUILDING OF EV VEHICLE
COMPONENTS UNDER MAKE IN INDIA & ANCILLARIES
MANUFACTURING HUB

MOTOR HUB

"MOST IMPORTANT MOTOR
MANUFACTURING SUITABLE FOR EV
VEHICLES HUB

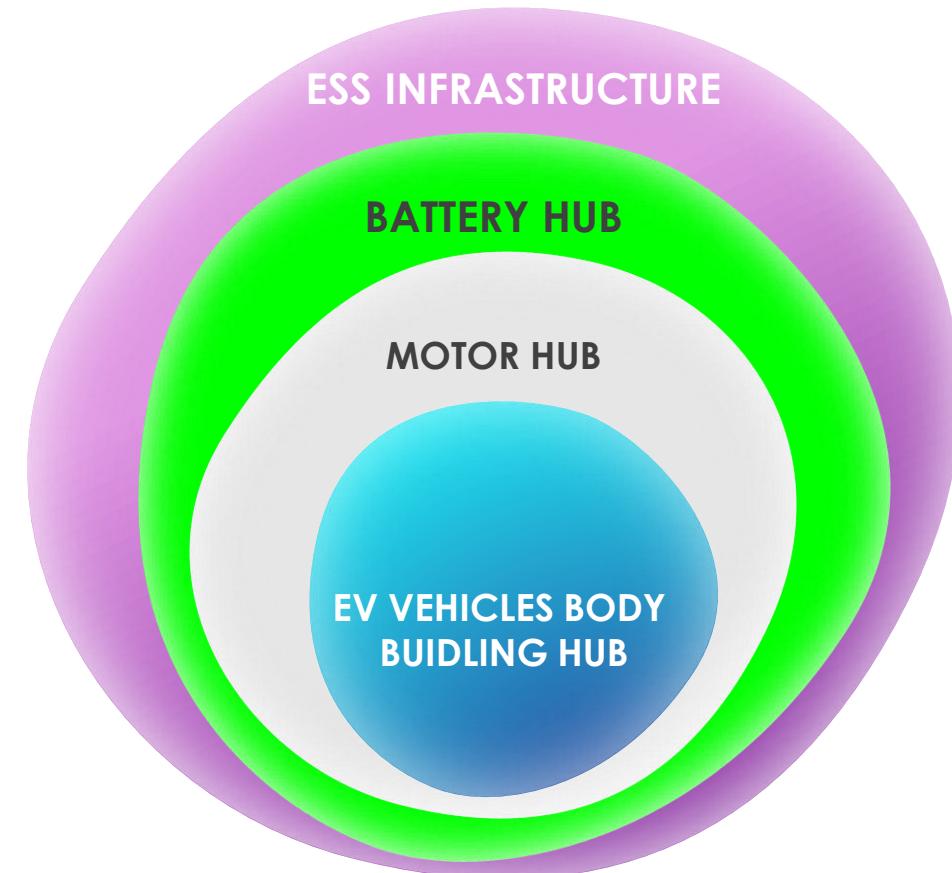
BATTERY HUB

"LETHIUM BATTERY AND ALL ALLIED
COMPONENTS MANUFACTURING HUB

ESS INFRASTRUCTURE "

"CREATE ESS MANUFACTURING
INFRASTRUCTURE TO MEET THE END
CONSUMERS CRITICAL NEED OF CHARGING
STATIONSS

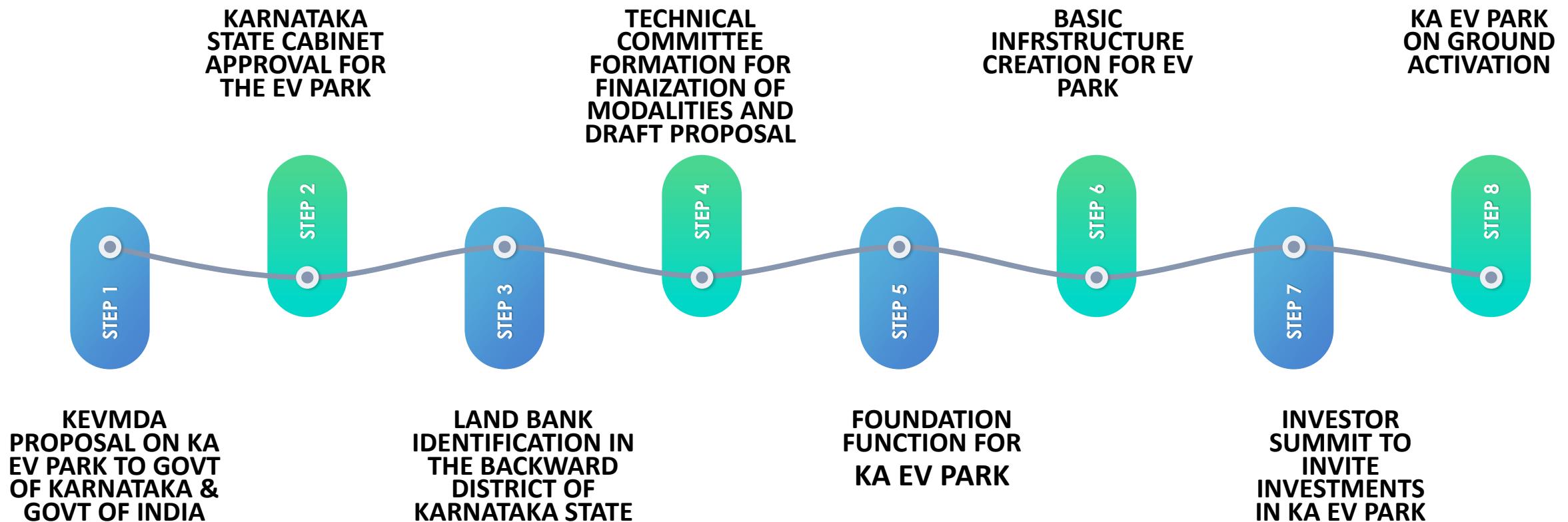
FOUR KEY COMPONENTS OF EV VEHICLES



Creation of EV Park and Vendor Ecosystem

- The major investments by the EV OEMs can be attracted only if there is a dedicated infrastructure and developed vendor eco system.
- EV Park will develop exclusive major auto manufacturing hubs and also in areas which have potential to attract EV investments.
- Common facilities will be provided to the vendor industries for proto typing, testing, training, etc. in these EV parks.
- Incentives under various schemes applicable to the MSME sector and major Industries shall be extended to these industries, subject to their eligibility.
- Further, Plug and Play manufacturing facilities will be created where vendors and OEMs can commence production with minimal capital investment in land and building.
- Logistic Parks and Free Trade Warehousing created where vendors and OEMs can commence production with minimal capital investment in land and building.

Steps to Create KA EV Park Road Map

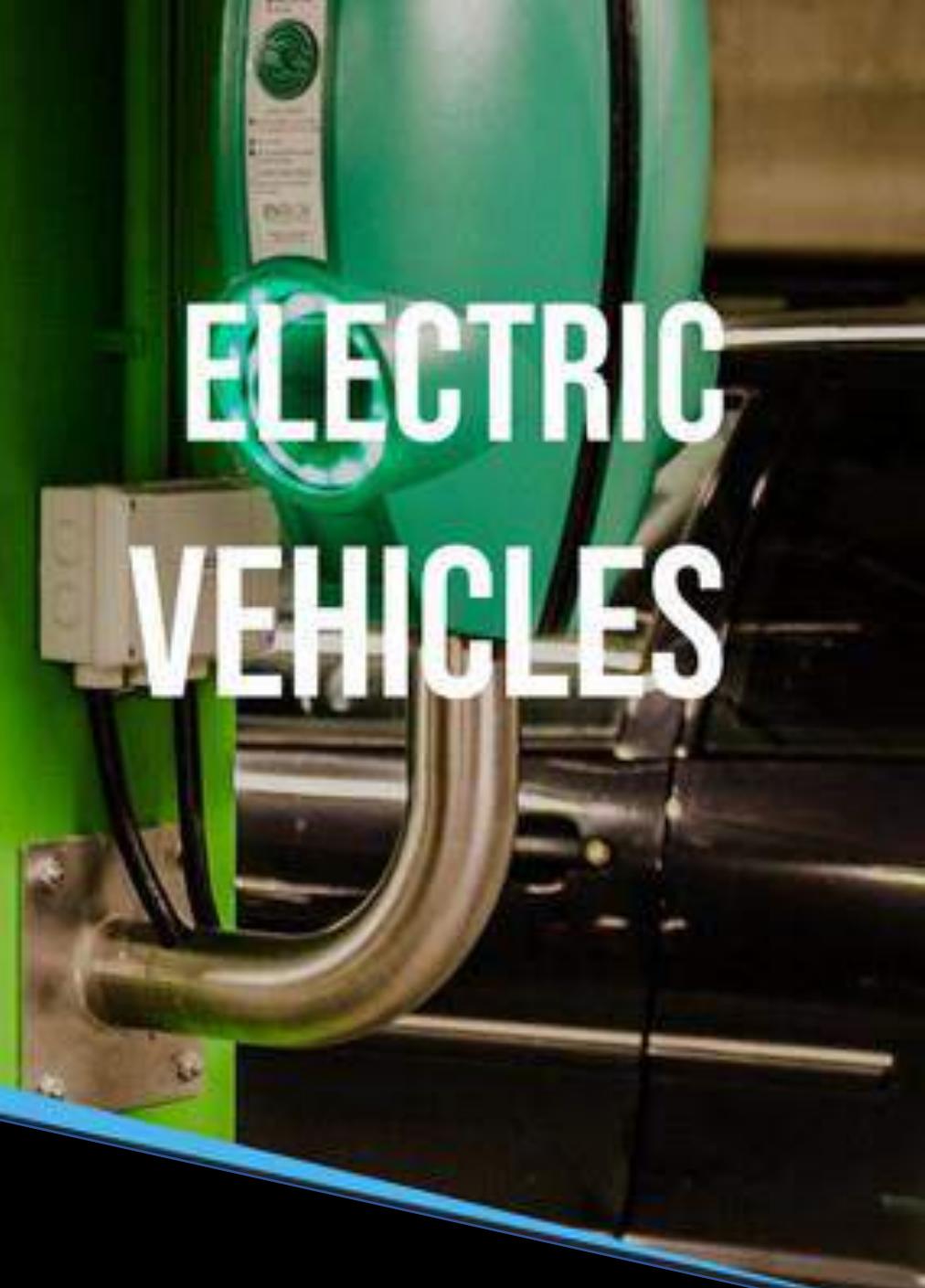




Electric
Vehicles

IMPLEMENTATION
STRATEGY

ELECTRIC
VEHICLES



Policy Measures

- The policy aims to build on the policy objectives & strategies to encourage growth of EV & ESS sector in the state and to attract private sector investments in this sector.
- The framework consists of promoting EV adoption for end users, setting up of Charging Infrastructure and Promoting Manufacturing of EV & ESS Components in the KA EV PARK.

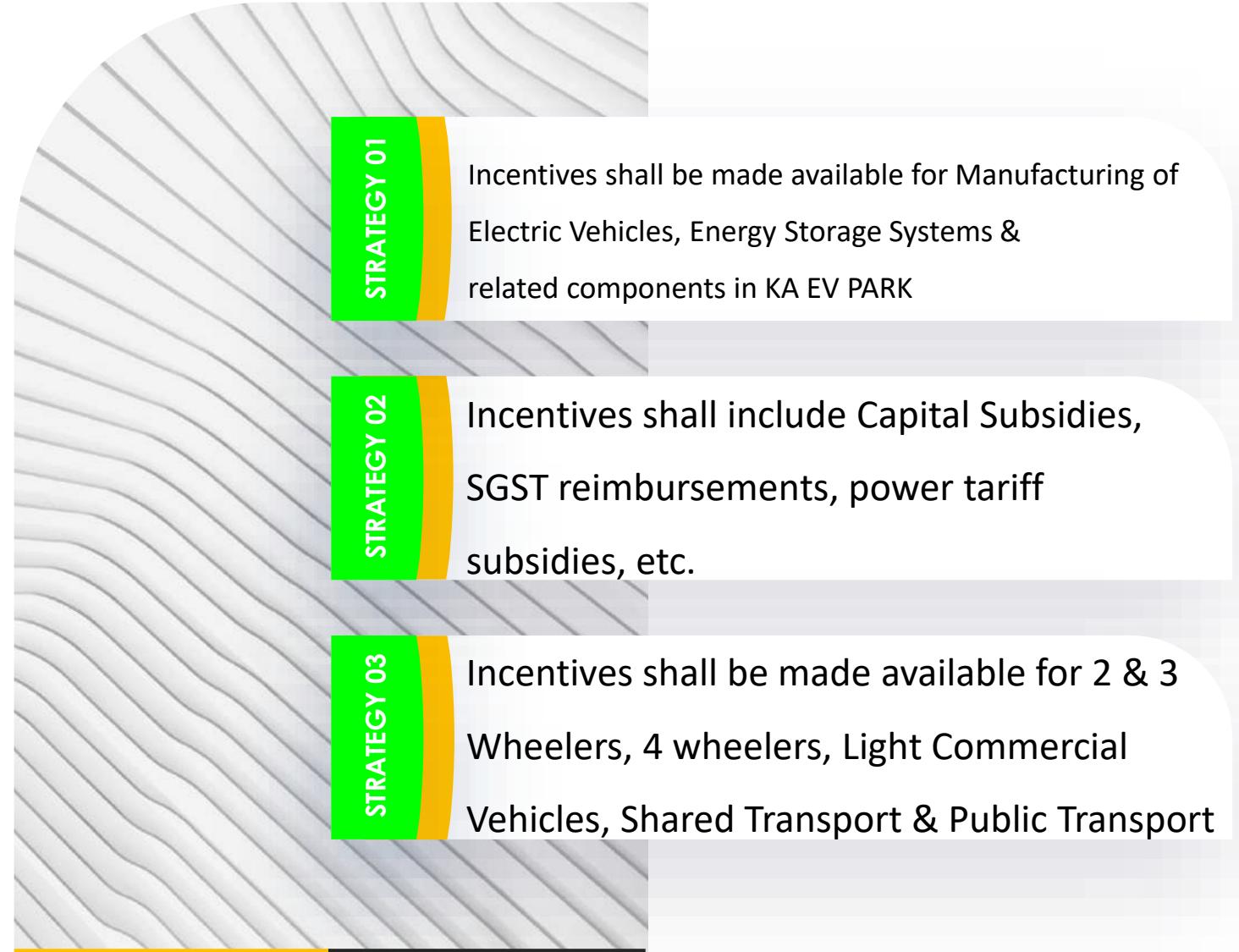


IMPLEMENTATION STRATEGY



KARNATAK EV PARK HAS TO BECOME
MOST ATTRACTIVE DESTINATION FOR
ALL INVESTORS, RELATED BODIES..

THE SUNRISE INDUSTRY OF THE
ATMANIRBHAR BHARAT SHALL
CREATE WEALTH CREATION

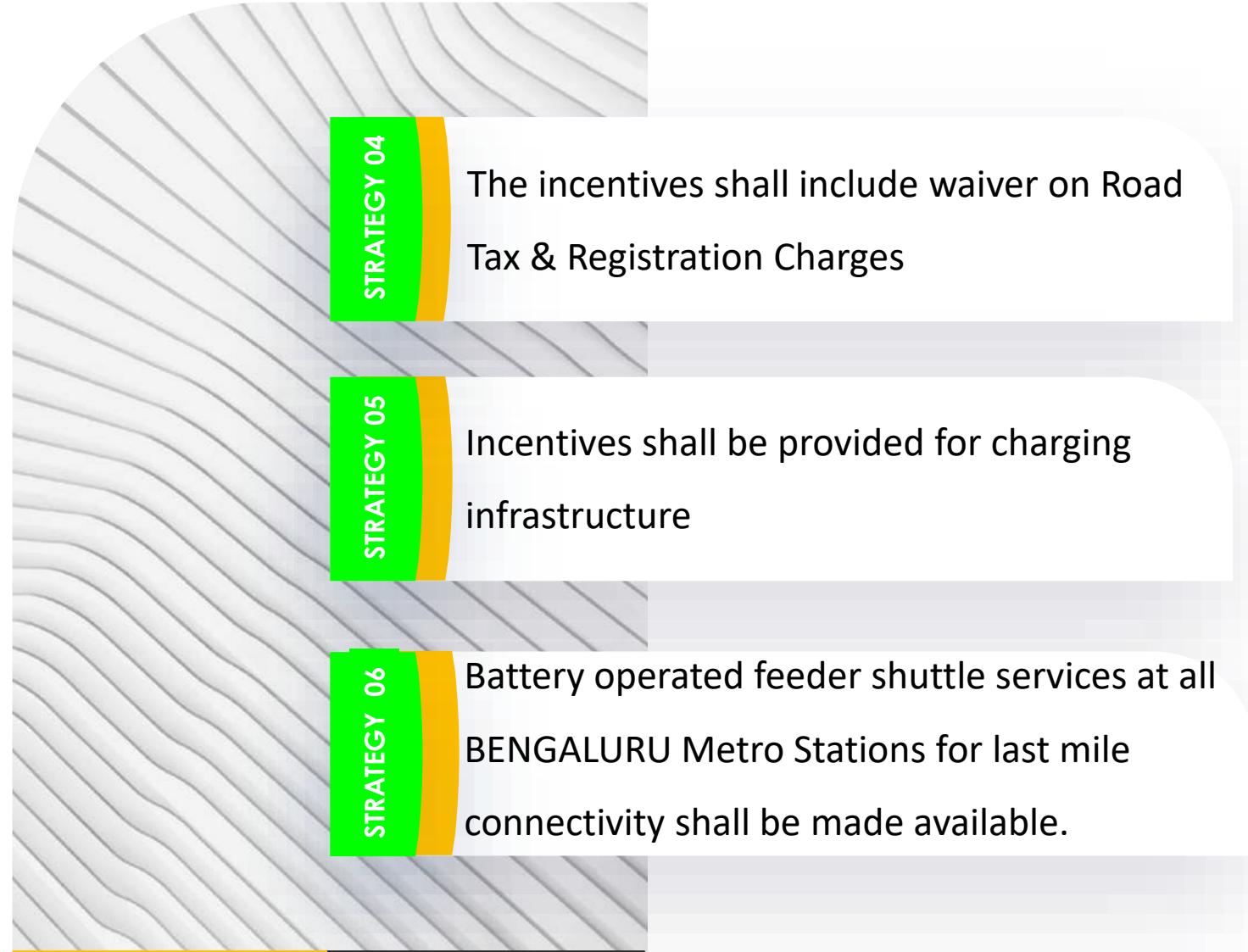




IMPLEMENTATION STRATEGY

NEW BUSINESS PLATFORM WITH ALL
IN ONE UMBRELLA FOR EV VEHICLES .

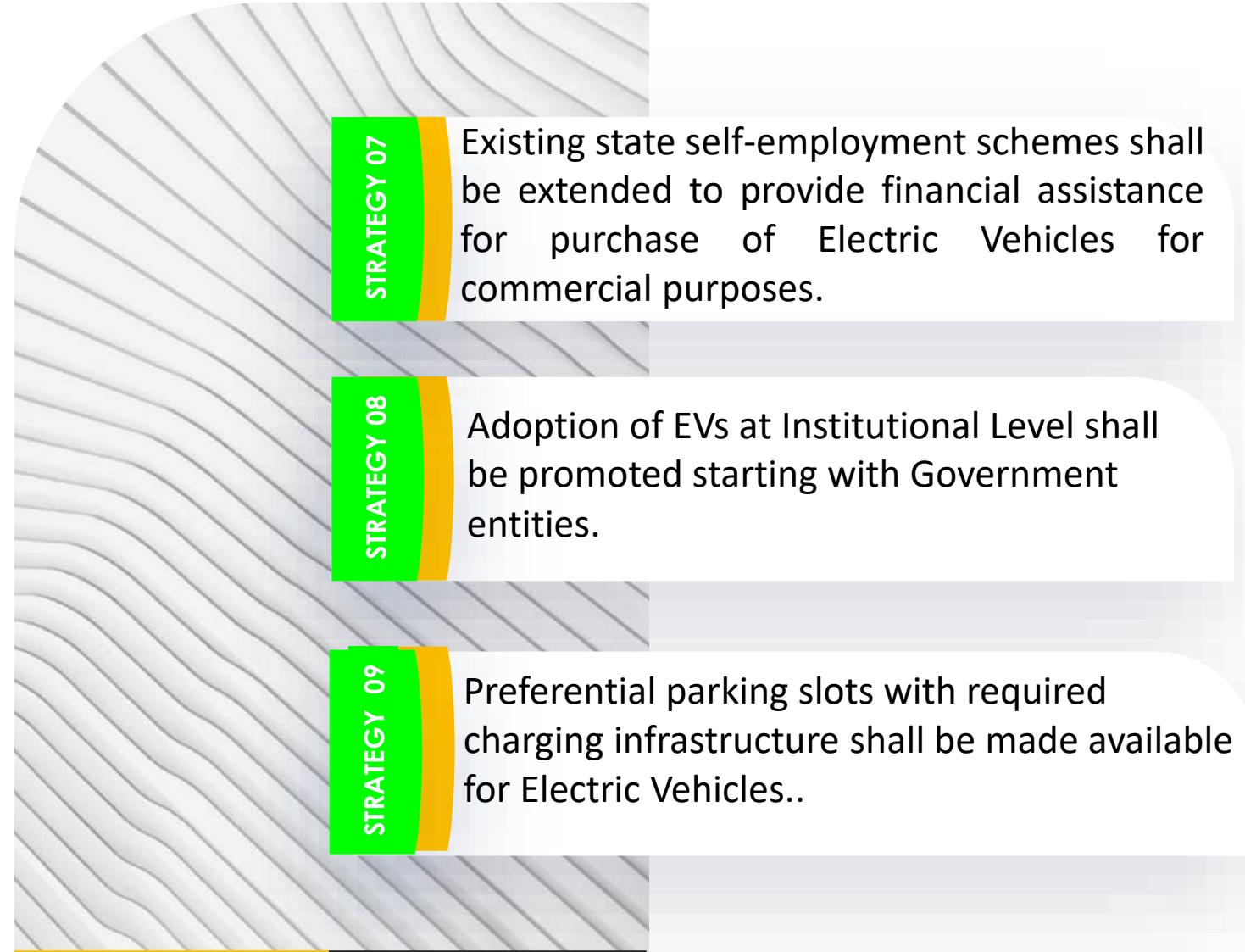
EV HUB WITH SINGLE WINDOW
CLEARANCES FOR INVESTORS.





IMPLEMENTATION STRATEGY

REDUCES TRANSPORTATION COST,
HIGHLY QUALITY PRECISION OF
ELECTRICAL AND MECHANICAL
ENGINEERING
NEW AVENUE FOR
EMPLOYMENT GENERATION
AND WEALTH GENERATION.



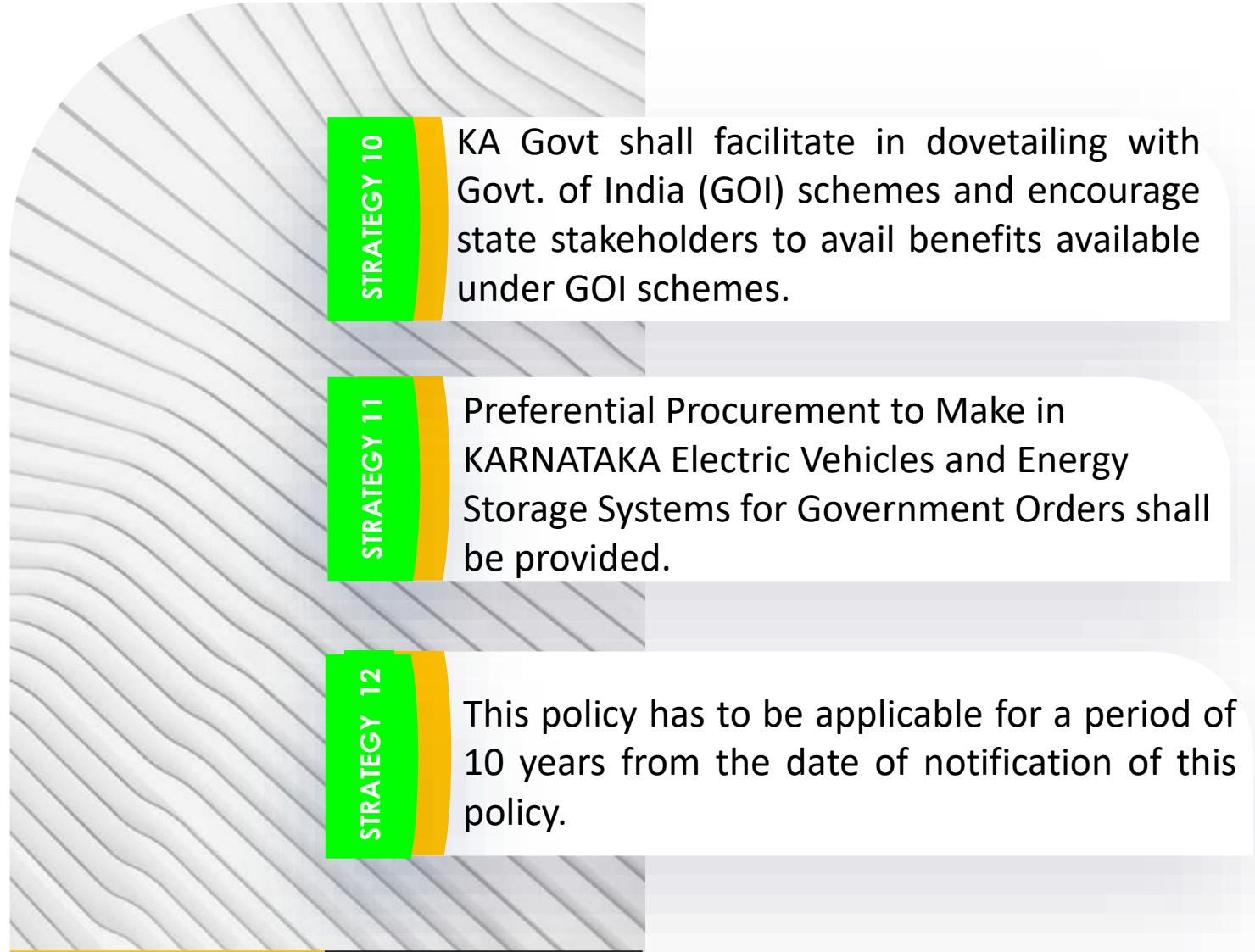


IMPLEMENTATION STRATEGY



KARNATAK EV PARK HAS TO BECOME
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THE SUNRISE INDUSTRY OF THE
ATMANIRBHAR BHARAT SHALL
CREATE EMPLOYMENT
OPPORTUNITIES



KA EV Park Infrastructure



Support For Manufacturers

1. EV & ESS sectors shall be incentivized as per the subsidies and incentives available under the Electronics Policy.
2. Government shall extend tailor-made benefits to Mega and Strategic Projects on case to case basis.
3. Categorized Mega projects.
4. Capital Investment Subsidy for Mega Enterprises and medium enterprises.
5. SGST Reimbursement for Mega Enterprises and medium.
6. Power Tariff Discount for 5 years capped.
7. Electricity Duty Exemption
8. Interest Subvention
9. Transportation Subsidy
10. Stamp Duty/ Transfer Duty/ Registration Fees Reimbursements

11. Lease Rental Assistance, Assistance in Patent Filing
12. Reimbursement of Quality Certification costs
13. Cleaner Production cost reimbursement
14. Exhibition Cost Reimbursements
15. Skill Development Assistance.
16. Electronics Manufacturing Clusters (EMC) encouragement
17. Industrial Park clusters to be developed for promotion of EV & Energy Storage manufacturing companies.
18. Batteries and related components make up a substantial part of EV.
19. Manufacture and assembly of EV related batteries and cells to be encouraged in the State through Electronics Manufacturing Policy and Incentives.
20. The Government shall promote reuse of EV batteries in stationary energy storage applications.

21. The government shall enable collaborating between cell/ battery manufacturers, EV manufacturers, energy storage operators & recyclers to ensure efficient reuse & recycling of batteries.

22. Urban Mining of rare materials and cell/ battery recycling shall be incentivized on par with EV & ancillary manufacturing.

Preferential Market Access

- The policy of **G O I** on preferential market access in Government procurement for domestically manufactured electronics products shall be implemented in all Government of Karnataka departments.
- Special preference to be given to KA EV PARK manufacturers.

KA EV Park & ESS Clusters

- 1) A mega KA EV Park & ESS cluster with global standard infrastructure to be developed.
- 2) The cluster to cater to EV & ESS and related component manufacturing.
- 3) The EV cluster to have common facilities as given below to be provided at doorstep of the industry.
 - a) Support infrastructure like roads & sewerage lines,
 - b) Support for underground power supply, street lighting
 - c) Support for water
 - d) High speed internet optical fiber cable network
 - e) Built-Up Space with ready factory sheds shall be developed to be used mainly by MSME units
 - f) A common facility for Design, prototyping, and testing available to all units in the cluster

- 4) Common infrastructure such as Drainage/ Common Effluent Treatment Plant (CETP)/Sewage Treatment Plant (STP) and utilities such as Power, Gas and Water.
- 5) Every industrial unit to have mandatory rainwater harvesting.
- 6) Electrical waste disposal, recycling units
- 7) Bio degradable material usage encouragement in the components packing and other usage areas.
- 8) A State-of-art Business environment with facilities such as Convention and exhibition centers
- 9) Shared facilities to meet staffing and training requirements, seminars, skill development centers.
- 10) A Logistics Hub shall provide with multimodal transport for safe and efficient handling of cargo and finished products.

I-CAT / ARAI Certification Centre

- Presently all EV-vehicles has to get certified at ARAI or I-CAT.
- KARNATAKA state has to obtain permission from Government of India to set up equivalent or competent institute in the KA EV PARK to give certification under KEIONICS technical guidelines.
- This will become nodal agency for South Indian States.
- This institute will facilitate south Indian states to get certified without much time loss, avoids delay and reduction in cost involved.



Stake Holders



Stake Holders

Electronics Wing, ITE&C Dept:

- ✓ EV Policy & Operational Guidelines, EV Policy Administration

Transport Dept:

- ✓ EV categorization, Administration of End User Rebates & Subsidies

Electricity Dept:

- ✓ Karnataka Electricity board Electricity Tariff Administration for Public & Private Charging.

Industries Dept:

- ✓ create KA EV PARK and clusters development industrial policy & land bank allotment

Municipal Administration Dept:

- ✓ Adoption of EV in Urban Areas. Identification of sites for EV parking & Public Charging Stations. Infrastructure for EV mobility – Preferential Parking, Charging infra in malls, apartment complexes, etc.
- ✓ Setting up of Public Charging facilities – airports, metro stations, parking lots, etc.,
- ✓ Fixing of Ceiling Cost of Service for EV Charging, Guidelines for charging stations – Public & Private
- ✓ Provision of Renewable Energy for Charging Stations as per Grid related provisions

KSRTC:

- ✓ Electrification of KSRTC Fleet, Setting up of Charging Infrastructure for KSRTC fleet

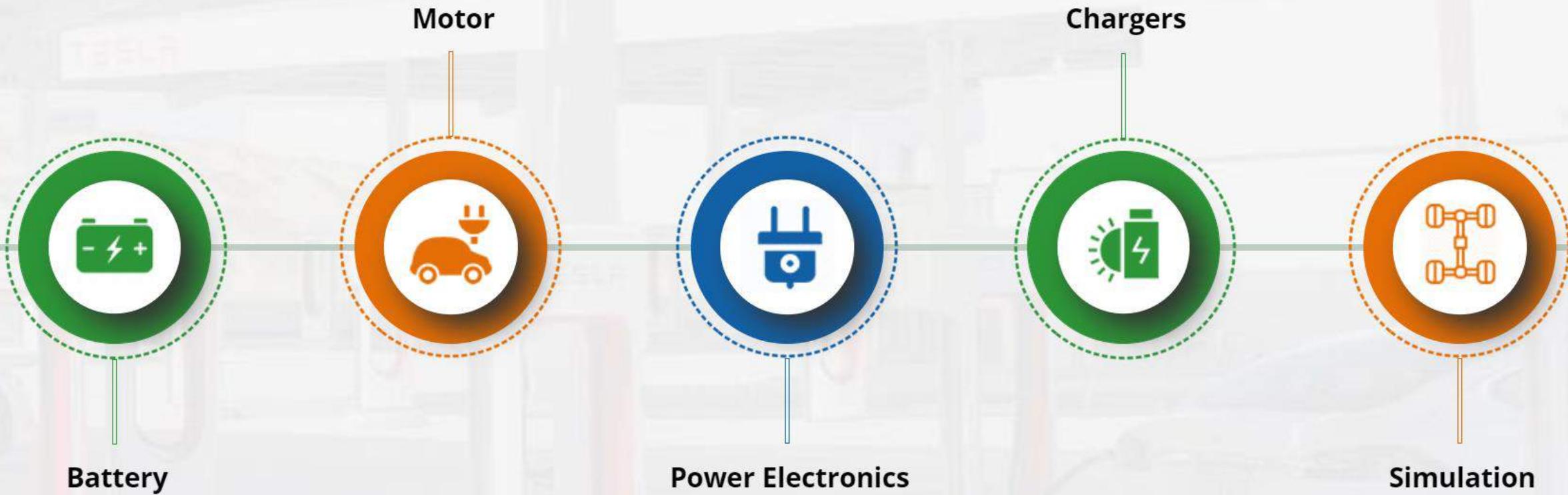
KEVMDA :

- ✓ Representing body of the industry of EV vehicles for speedy Ev-vehicles industry growth.

Steering Committee

- Government of Karnataka to constitute a Steering Committee comprising of senior officials from relevant departments.
- The steering committee shall work towards time- bound EV demand creation of KA EV PARK & CLUSTERS development policy.
- Charging network development in metro cities BENGALURU, MYSORE, HUBLI, followed by other towns in the State.
- The Steering committee shall also for periodic review of EV policy in KA EV PARK.

Collaborative Research



Research & Development

- A dedicated facility shall be developed to house EV R&D centers by domestic and global EV Majors.
- KARNATAKA'S strength in Technology domain shall be leveraged to provide quality manpower for such centers.
- KA EV PARK hub is also expected to attract global R&D activities on other emerging mobility trends such as connected and autonomous vehicles.

Centres of Excellence

- State Government and KEVMDA to jointly partner with premier Technical Institutes and research establishments across the state to establishing Centers of Excellence.
- This will encourage congenial environment for conducting market-focused research on Battery Technologies, battery management, motors, and controllers.
- State Government shall support Industry participation and leverage GOI EV policy to provide grant to these centers.

STARTUP Support

- The Government shall offer financial support to Start-ups for research and innovation in EV & Battery technologies.
- Yearly awards shall be instituted to recognize breakthrough work in Battery Technologies in separate categories for OEM's, ancillaries and start-ups

Automotive Prototyping Centre

- To set up Recognized India's largest Prototyping Centre, shall have a dedicated wing for prototyping of Electric Vehicle components/ assembly & battery.
- Industry partnership in the same shall be invited from EV OEMs and large component manufacturers.
- The facility shall serve start-ups and MSME units in the EV space at subsidized rates.

Demand Side

**GO GREEN
GO ELECTRIC**



Demand Side Incentive

1. Electric Two Wheelers

100% exemption of road tax & registration fee for the 2 Wheelers purchased & registered within KARNATAKA.

2. Three-Seater Auto-Rickshaws

100% exemption of road tax & registration fee for Electric 3 Wheelers purchased & registered within KARNATAKA

3. Retro-fitment incentive

The retro-fitment cost capped per vehicle for 3 seater auto rickshaws in KARNATAKA

4. Financing Institutions

Banks & NBFs shall be encouraged to provide a hire-purchase scheme at discounted interest rates.

5. Electric 4-Wheeler commercial passenger Vehicles (Taxi, Tourist Cabs, etc.)

100% exemption of road tax & registration fee for Electric 4-Wheeler commercial passenger Vehicles such as Taxi, Tourist Cabs, etc. purchased & registered within KARNATAKA

6. Light Goods Carriers - including Three Wheelers (goods)

exemption of road tax & registration fee for Electric three-wheeler (goods), e-carriers as well as electric Light Goods carriers purchased & registered within KARNATKA state.

7. Private Cars

exemption of road tax & registration fee for the Electric 4-Wheeler private vehicles purchased & registered within KARNATAKA

8. Buses (Public transport, school buses & mini buses)

exemption of road tax & registration fee for the Electric buses purchased & registered within KARNATAKA

9. KSRTC BUSES

State Transport Units shall also be encouraged to purchase Electric buses as well as for conversion of buses.

10 Tractors

exemption of road tax & registration fee shall be applicable for electric tractors purchased and registered in the state of Karnataka

11. TOURISM BOATS & BOATS

exemption of road tax & registration battery operated tourism boats and commercial boats for fisherman to use for fishing.



EVCS
E-Vehicle Consulting & Services

PLUG IN INDIA



Electric Vehicles & Energy Storage Policy

- **Public EV Charging Stations:** In addition to Public Charging Stations at Airports, Metro Stations, Parking lots the EV Charging Infrastructure should be installed at Major Railway terminals, KSRTC BUS stations, Major terminals of KSRTC bus depots, shopping malls, Municipality parking areas, Metro city Municipal corporation parking areas, Tourism destinations, Hotels, restaurants etc.
- **BUILDING LAYOUTS:** Approval of building layouts and plans within its jurisdiction by performing technical scrutiny to ensure the fulfilment of the building permit provisions for Electric Vehicle Charging Infrastructure.
- **PARKING ZONES:** Preferential parking for EV vehicles can be proposed at commercial buildings and multi-modal hubs.

- Extensive promotion in adoption of EV through various print media/electronic media/ related Govt. platforms, workshops, awareness program.
- Development of App: with features covering – locations of EV charging stations, descriptions of its technical infra, status of availability of charging port, swapping facility, etc.
- Planning interventions for promotion of E- mobility and faster adoption of E Vehicles through amendments and updating building Bye-Laws/Regulations/Policies/ Guidelines

Business Opportunities in E V Sector

- Public EV charging Stations
- Battery recycling Business
- Battery swapping Technology
- solar electric vehicle charging
- Home charging stations
- EV Equipment Manufacturing
- EV Franchise and Dealership



E-MOBILITY

Driving the Future of
Mobility

Conclusion

- Electric Vehicles have emerged as one such mobility solution that holds best promise in terms of sustainability and mass adoption with its pace of technology advancement and cost rationalization.
- Electric Vehicle technology integrations with the community transport and shared mobility make the promise even stronger.
- KA EV PARK is proposed to make KARNATAKA State the Electric Vehicle capital and Energy Storage Systems Manufacturing hub of India.
- KA EV PARK THE PRIDE OF KARNATAKA STATE.

KARNATAKA



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thank you!