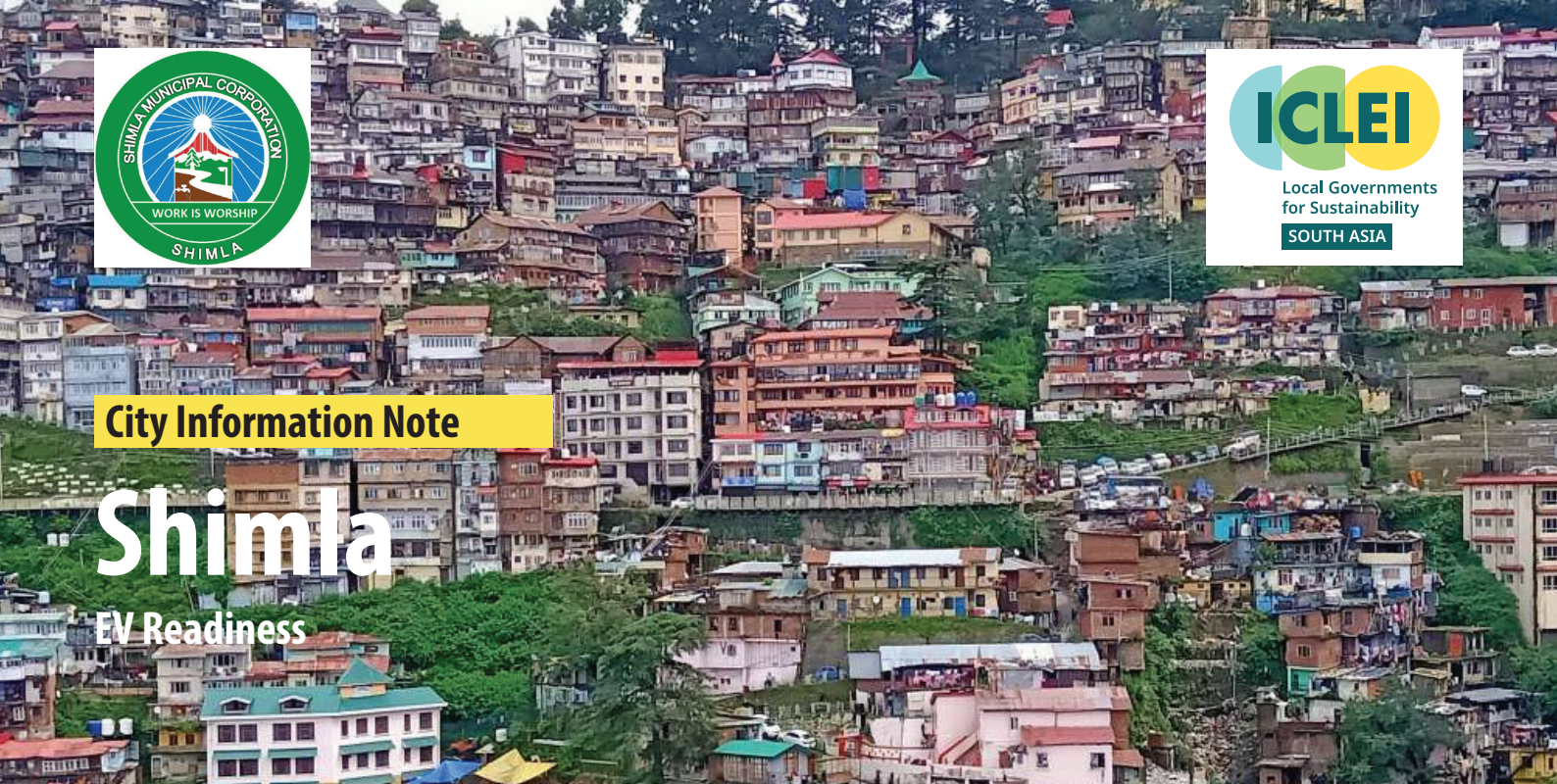




## City Information Note

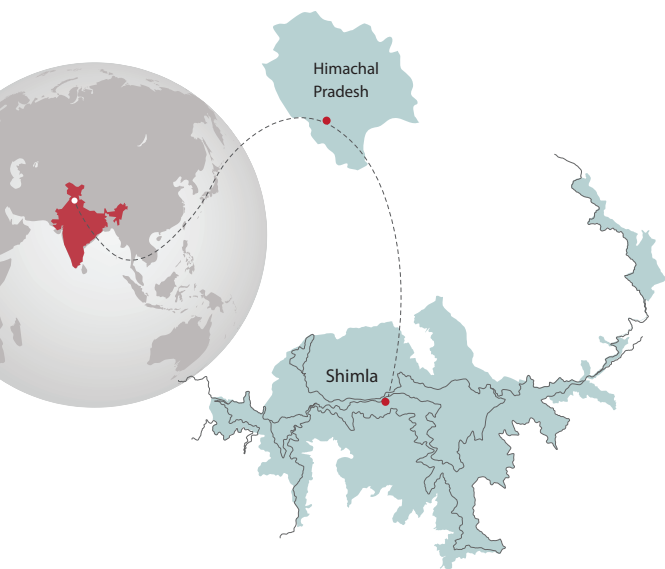
# Shimla

## EV Readiness



## City overview

Shimla is the capital city of Himachal Pradesh, built over several hills and connecting ridges. It was formerly the summer capital during the British rule. After Independence, Shimla became the capital of Punjab and later after division of state, it became the capital of Himachal Pradesh. Its natural wealth of green pastures, snow-capped mountain peaks, cool weather and structures of the colonial era makes it different from other hill stations as well as a popular hill station and a tourist destination.



### Demographics



**Population**  
1.7 Lakhs



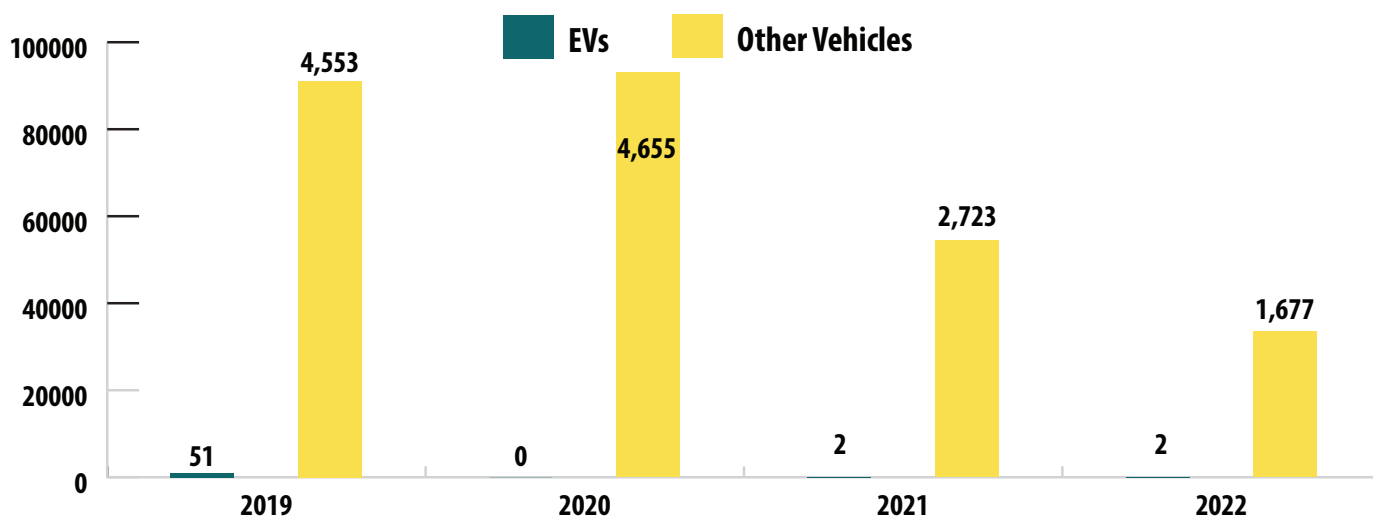
**Area**  
35.34 sq. km.



**City Type**  
Tier-II

### Vehicles Registered\*

There were 50 E-buses registered in Shimla in 2019, comprising almost 90% of the total EVs registered till now. After 2019, only about 0.1% of the total vehicles registered are EVs.



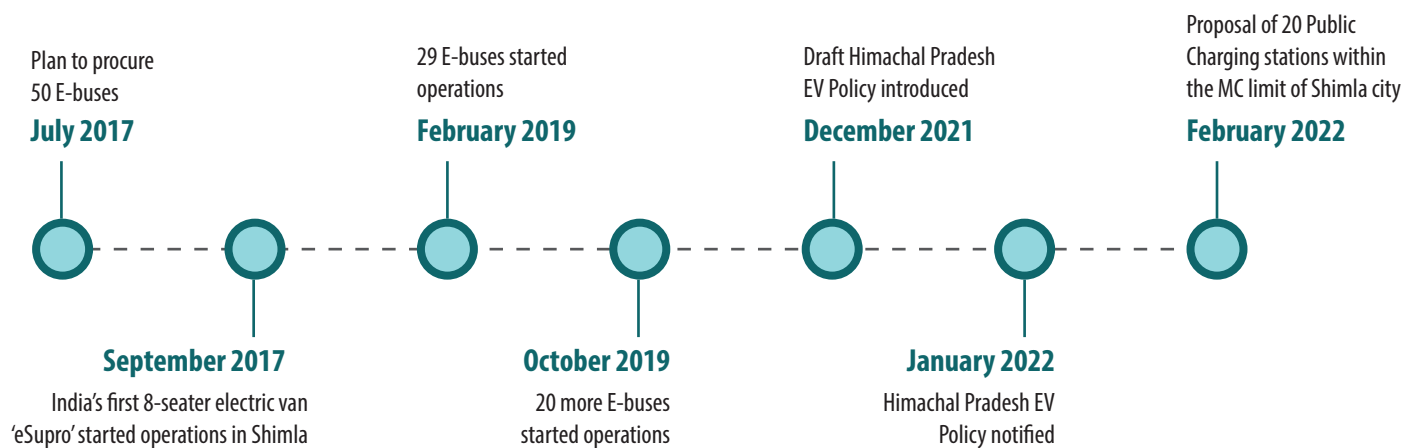
\*Information source: VAHAN Dashboard, accessed on 30 September, 2022

## Background

The electric mobility revolution is gaining momentum in Indian cities and is being promoted by the central government through various incentives to reduce the country's reliance on fossil fuels and to reduce Greenhouse Gas (GHG) emissions from the transport sector. Indian cities are also aiming to integrate sustainable and low emission alternatives in urban transport. But long-term actions are required for mass adoption of e-mobility in Indian cities. ICLEI South Asia embarked on an initiative to "Support Indian Cities in Taking Leadership on Electric Vehicles (EV)" to aid the cities in identifying priority interventions and to take necessary steps towards an accelerated transition to EVs.

This initiative included several interactions and discussions with the city stakeholders during visits to 10 project cities - Coimbatore, Gangtok, Kochi, Lakshadweep, Meerut, Nagpur, Panaji, Rajkot, Shimla and Surat. Consultations were held with major stakeholders impacting the EV transition in cities, such as advisory groups, industry experts including the advocacy group, charging infrastructure developers, vehicle technology/OEMs and financial institutions. As part of the initiative, the ICLEI South Asia team visited Shimla on 5th – 6th August, 2022 to interact with the stakeholders, understand the existing EV transition situation in the city, as well as the challenges and opportunities and to suggest a way forward for the city.

## EV related developments in Shimla













## Key stakeholders

The stakeholders in Shimla related to the EV transition process, with whom interactions were held during city visit were:

	Stakeholders	Roles
State Government Stakeholders	Himachal Road Transport Corporation (HRTC)	<ul style="list-style-type: none"> <li>• Intercity and intra-city bus operation.</li> <li>• Lead the procurement of e-buses when the city decides for the same.</li> <li>• Nodal agency for HP EV policy</li> </ul>
	Himachal Pradesh Electricity Board Limited (HPEBL)	<ul style="list-style-type: none"> <li>• Electricity generation, transmission and distribution</li> <li>• Provision of approvals for electricity connections.</li> <li>• Ensuring timebound access of required load of electricity.</li> <li>• Finalising tariff EV charging</li> </ul>
	Department of Town & Country Planning, Govt. of Himachal Pradesh	<ul style="list-style-type: none"> <li>• Building plan approvals for areas outside the municipal corporation boundary</li> <li>• Development and updation of Master Plan, Development Plan and planning norms.</li> </ul>
City Government Stakeholders	Shimla Municipal Corporation	<ul style="list-style-type: none"> <li>• Building plan approval</li> <li>• Amendment of building byelaws/rules to include EV provision</li> <li>• Finalising EV targets for the city</li> <li>• Land Owner- Demarcate land for charging infrastructure</li> </ul>
	RTO, Shimla	<ul style="list-style-type: none"> <li>• Registration of vehicles and prioritisation of EVs through single window clearance.</li> </ul>
Others	NGOs	<ul style="list-style-type: none"> <li>• Cater to the technical trainings and capacity building needs of the officials</li> </ul>

## State EV Policy

Himachal Pradesh EV policy has following key points:

 <p>Duration- Five years, till 2027</p>	 <p>Model cities include Shimla, Mandi, Baddi, Dharmshala</p>
 <p>Target of 15% of newly registered vehicles to be electric by 2025 and at least one charger in 1 sq. km grid in cities and at every 25 km on each side.</p>	 <p>EV readiness plans for the four model cities.</p>
 <p>Open databank and single-window clearance for manufacturers.</p>	 <p>Provision of EV Industrial Park and Infrastructural support to manufacturing plants</p>
 <p>Vehicle scrapping policy will be encouraged.</p>	 <p>One low/zero emission zones in each model EV city</p>
 <p>State will plan to transition to E buses for its institutional fleet.</p>	 <p>State EV Fund - 95% funds of Green Tax and Compounding Fee</p>

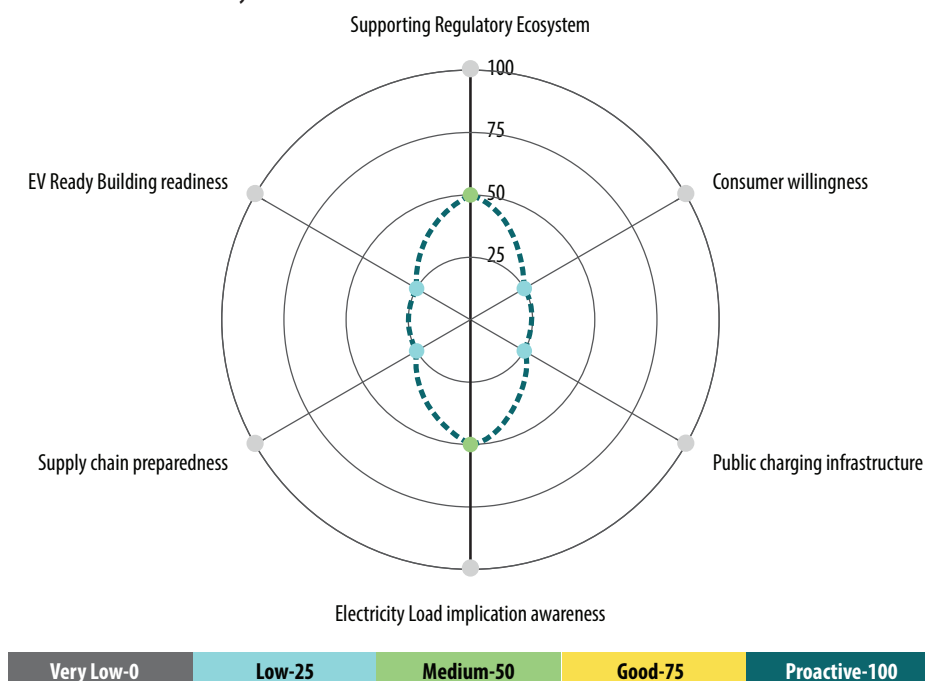
## City- EV related actions-status\*

This information was collected during the city visit through interaction and discussion with the government and private stakeholders in Shimla.

<h3>Policy and Advocacy</h3> <ul style="list-style-type: none"> <li>State level Policy- Yes</li> <li>City level Policy- No</li> <li>Initiatives- Yes</li> </ul>	<h3>Charging Infrastructure</h3> <ul style="list-style-type: none"> <li>Public charging stations- No (plans to setup public charging stations)</li> <li>Electric bus charging - Yes (two locations for e-buses, Dhalli Workshop and Old bus stand)</li> </ul>
<h3>Financial Incentives</h3> <p><b>State level - Yes</b></p> <ul style="list-style-type: none"> <li>Charging infrastructure- Land concession for setting up PCS</li> <li>EV buyer- Road tax exemption, toll tax exemption for the policy duration</li> <li>Separate tariff for EV charging</li> </ul> <p><b>City level - No</b></p>	<h3>Vehicle Technology - Supply chain</h3> <ul style="list-style-type: none"> <li>Vehicle performance related challenges due to the weather conditions</li> <li>Low confidence among users about EV performance in hilly terrains</li> </ul>







## City Readiness

Shimla city's EV readiness was synthesized after scoring the parameters impacting EV transition. **Twenty-five parameters were listed under six categories**, including supporting regulatory ecosystem, supply chain preparedness, consumer willingness\*, public charging infrastructure, EV ready building readiness and electricity load implication awareness. The scoring of the city was based on the information collected during city visits. The readiness of the city was assessed as follows:



\*Consumer willingness rating is based on the responses of dealers of EV and on discussions with the city government officials.

There is a need for a push from the city government along with the state government, to encourage users to transition to EVs by developing the EV charging infrastructure in major hotels, tourist spots and highways and, considering the weather conditions to plan EV adoption and infrastructure development along with sensitisation of the users about EV performance in hilly terrains. The observations from city readiness assessment includes:

	The existing regulatory ecosystem includes the HP EV policy, with a focus on four model cities. Implementation of actions under the same is ongoing.
	Consumer willingness is low because of lack of confidence in EV and its performance in hilly terrains.
	Discussions related to public charging infrastructure is underway with EESL and REIL to setup PCS at various locations (to be finalised) . Lack of clarity related to the additional power infrastructure required and financial implications is delaying the process.
	The officials of the electricity department are aware about the additional infrastructure and financial obligations for charging stations. There is a need for more awareness about to the increase in electricity demand for EV charging.
	There is a lack of supply chain preparedness. Currently the vehicles/parts are sent to other city for repair and maintenance.
	More awareness and capacity building for sensitisation related to EV ready buildings, is required. Officials acknowledge that there is a need to include a provision for EV charging in building byelaws.

## Observations

Shimla is a hill city with a state policy focusing on 4 model cities, the initiatives related to EV adoption are focused on these cities. The key challenges identified after the city visit and interactions with the stakeholders are:



Lack of confidence among users related to EV performance in hilly terrain



Initial lack of awareness about the required additional power infrastructure and financial obligations, which leads to a delay in charging station installation



Challenges related to EV operation in hilly terrain



Need to consider weather conditions (heavy rainfall and snow fall) in planning for charging stations



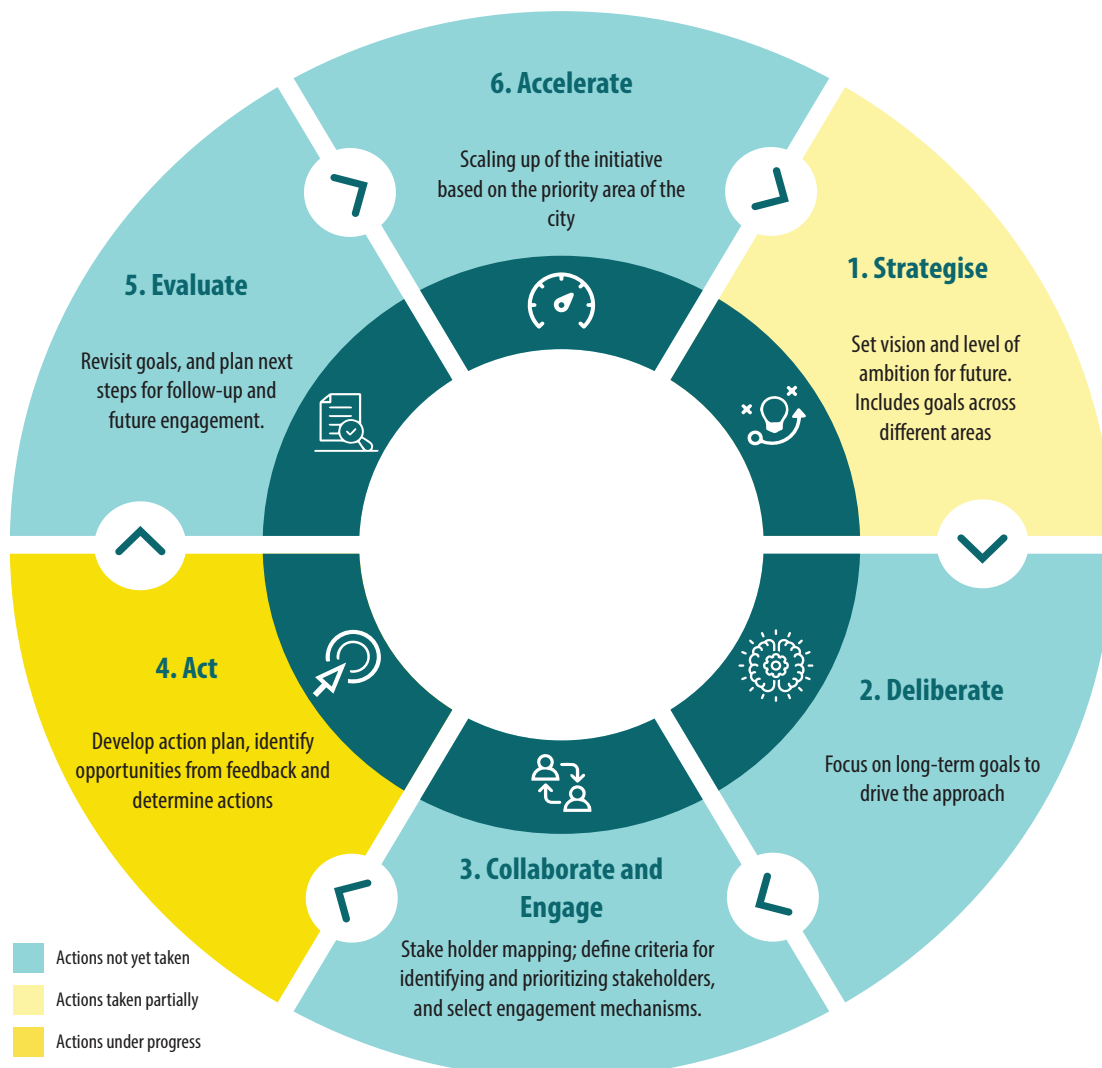
Lack of a mandate in building byelaws to integrate provision for EV charging in new buildings

## Approach

A series of discussion and consultation with industry experts, advisory group and the city stakeholders (during city visit) was conducted to develop the approach for cities. The process is as illustrated below:



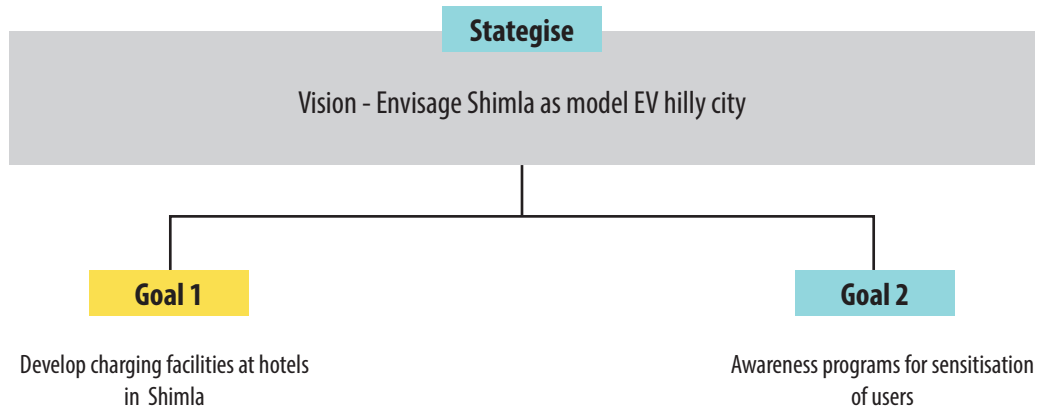
The six-step approach which Shimla should preferably follow to address the challenges identified above are as follows:



As per discussions, Shimla is currently focusing on the step of 'STRATEGISE' and is implementing actions i.e. 'ACT'; focus is required on the other steps of the approach along with a clear set of targets and strategies for Shimla.

## Recommendations

The city should form a nodal team/ nodal person, which leads the EV initiative and implements and monitors the tasks related to EV adoption. Further, encouraging hotels in Shimla to install charging stations in their premises and awareness programme for sensitisation of users are two major recommendations as per the analysis. A brief description as per the six-step approach is as follows:



Goal 1 -Develop charging facilities at hotels				
Deliberate	Collaborate and Engage	Act	Evaluate	Accelerate
Encourage hotel chains to provide charging facility in their premises	<ul style="list-style-type: none"> <li>Major hotels/ hotel management</li> <li>Shimla Hotel &amp; Restaurant Association</li> <li>NGO/ Third party consultant</li> </ul>	<ul style="list-style-type: none"> <li>Awareness session related to benefits of EV charging provision (to be organised for hotel association and management)</li> <li>Incentives for including provision of EV charging facility in hotels</li> <li>Demand projections for EV charging by guests</li> <li>Additional revenue option</li> <li>Impacts of including EV charging provision</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of hotels management willing to provide EV charging facility</li> </ul>	<ul style="list-style-type: none"> <li>Accelerate the awareness and sensitisation programme to encourage to include EV charging provision in their premises</li> </ul>
Options of charging facility and considerations	<ul style="list-style-type: none"> <li>SMC</li> <li>Town &amp; Country planning department</li> <li>HPSEBL</li> <li>Charge Point Developer and Operators (CPOs) and E-Mobility Service Provider (e-MSPs)</li> <li>Third party consultant</li> </ul>	<ul style="list-style-type: none"> <li>Option of providing socket for EV charging, providing a slow/fast charger for EV as per the demand.</li> <li>Location and accessibility</li> <li>Options for priority location in premises, grid readiness,</li> <li>Permits and regulations and costs and installation</li> <li>Cost of installation</li> </ul>	<ul style="list-style-type: none"> <li>Identify and finalise the best suitable model for hotels in Shimla</li> </ul>	<ul style="list-style-type: none"> <li>Finalise the installation and operational model for charging facilities in hotel premises</li> </ul>
Developing EV ready hotels premises	<ul style="list-style-type: none"> <li>Major hotels/ hotel management</li> <li>HPSEBL</li> <li>Transport department</li> <li>SMC- Architect Planning branch/ Town &amp; Country Planning</li> <li>Shimla Hotel &amp; Restaurant Association</li> </ul>	<ul style="list-style-type: none"> <li>Guideline document for hotel management and association, which includes the installation considerations</li> <li>Additional power infrastructure required, and financial obligations</li> <li>Tariff and billing</li> <li>Maintenance and safety of equipment</li> <li>Incentives like fast track approval, incentivised advertisements, property tax exemption for a year for EV ready hotels</li> </ul>	<ul style="list-style-type: none"> <li>Percentage of hotels that provide EV charging facilities</li> </ul>	<ul style="list-style-type: none"> <li>Encourage all major hotels to provide EV charging facilities in their premises and also on major roads/ highways that may help to attract more EV users</li> </ul>

## Goal 2

Deliberate	Collaborate and Engage	Act	Evaluate	Accelerate
General information related to EVs	<ul style="list-style-type: none"> <li>● SMC</li> <li>● Transport Department</li> <li>● OEMs</li> <li>● Local NGOs</li> </ul>	<ul style="list-style-type: none"> <li>● General information related to EV performance on hilly areas, fuel cost savings, cost comparison</li> <li>● More public awareness about location of chargers</li> <li>● Existing incentives and subsidy</li> <li>● Options of models available</li> </ul>	<ul style="list-style-type: none"> <li>● Improved willingness to transition to EVs</li> </ul>	<ul style="list-style-type: none"> <li>● Scale up the awareness programme to ensure coverage of the city</li> </ul>
Public event	<ul style="list-style-type: none"> <li>● SMC</li> <li>● OEMs</li> <li>● EV retailers</li> <li>● Local NGOs</li> </ul>	<ul style="list-style-type: none"> <li>● Include ride and drive option for the general public at showrooms</li> <li>● Conduct EV expo/showcase under leadership of SMC</li> </ul>	<ul style="list-style-type: none"> <li>● Scale up the awareness program to ensure coverage of the city</li> </ul>	<ul style="list-style-type: none"> <li>● Retrofit exiting buildings to be EV ready as per demand, specially multi-storied residential and office buildings</li> </ul>
Exposure to EVs -Pilot/demonstration project	<ul style="list-style-type: none"> <li>● SMC</li> <li>● Transport Department</li> <li>● HPSEBL</li> <li>● Local NGOs</li> </ul>	<ul style="list-style-type: none"> <li>● Pilot vehicle operation and exhibition for general public</li> <li>● Encourage people to use e-buses in the city</li> <li>● Encourage government officials to use EVs as a demonstration project</li> <li>● Convert tourist rental vehicles to EVs</li> </ul>	<ul style="list-style-type: none"> <li>● Successful operation of vehicle under the pilot project</li> </ul>	<ul style="list-style-type: none"> <li>● Ensure that new vehicle buyers opt for EVs</li> </ul>

## Way Forward

Long-term planning with prioritised set of targets, as listed below will be useful for making an aggressive push towards EVs in Shimla:



Finalising priority locations for charging infrastructure network covering the major tourist spots in and around the city and highways.



Encouraging hotels to provide charging facility in their premises.



Promoting R&D for a reliable EV technology for hilly areas



Grid readiness after electricity demand assessment.



Awareness programme to sensitise public and government officials about EV performance, EV infrastructure and its developments, on demand basis.



Electrification of Government fleet

### Acknowledgement

ICLEI South Asia would like to express its sincere gratitude to the officials from Shimla Municipal Corporation (SMC), Himachal Road Transport Corporation (HRTC), Himachal Pradesh Electricity Board Limited (HPEBL), Department of Town & Country Planning, Govt. of Himachal Pradesh and RTO Shimla for their insights and guidance. The inputs from the Advisory Group members were crucial in finalizing the document.

### Disclaimer

This document includes preliminary recommendations and the way forward, based on interactions, fieldwork and background research and may require detailing as per the dedicated studies.

For more information, please contact:

**ICLEI - Local Governments for Sustainability, South Asia**

C-3 Lower Ground Floor, Green Park Extension, New Delhi 110 016

Tel: +91-11-4974 7200, Fax: +91-11-4974 7201, Email: [iclei-southasia@iclei.org](mailto:iclei-southasia@iclei.org)