

Institute for Sensible Transport

Electric vehicle charging
specialists advising local

Who we are and what we do



The Institute for Sensible Transport is a consultancy advising local government on Electric Vehicle (EV) charging strategy and planning. We have an in-depth knowledge of EV charging infrastructure, network planning, best practice and optimising the user experience.

A core part of our work includes advising all three levels of government on EV charging network planning, demand analysis and strategy development.

We assist local government by modeling the number and type of EV chargers required in the future and the locations that best serve the community. We also advise local government on how to get the best charging network, at least cost to Council. Our EV charging strategies and policies provide a transparent, evidence based blueprint for helping local government plan their future EV charging network.



We are one of Australia's most experienced advisory firms helping local government on EV charging planning and strategy.

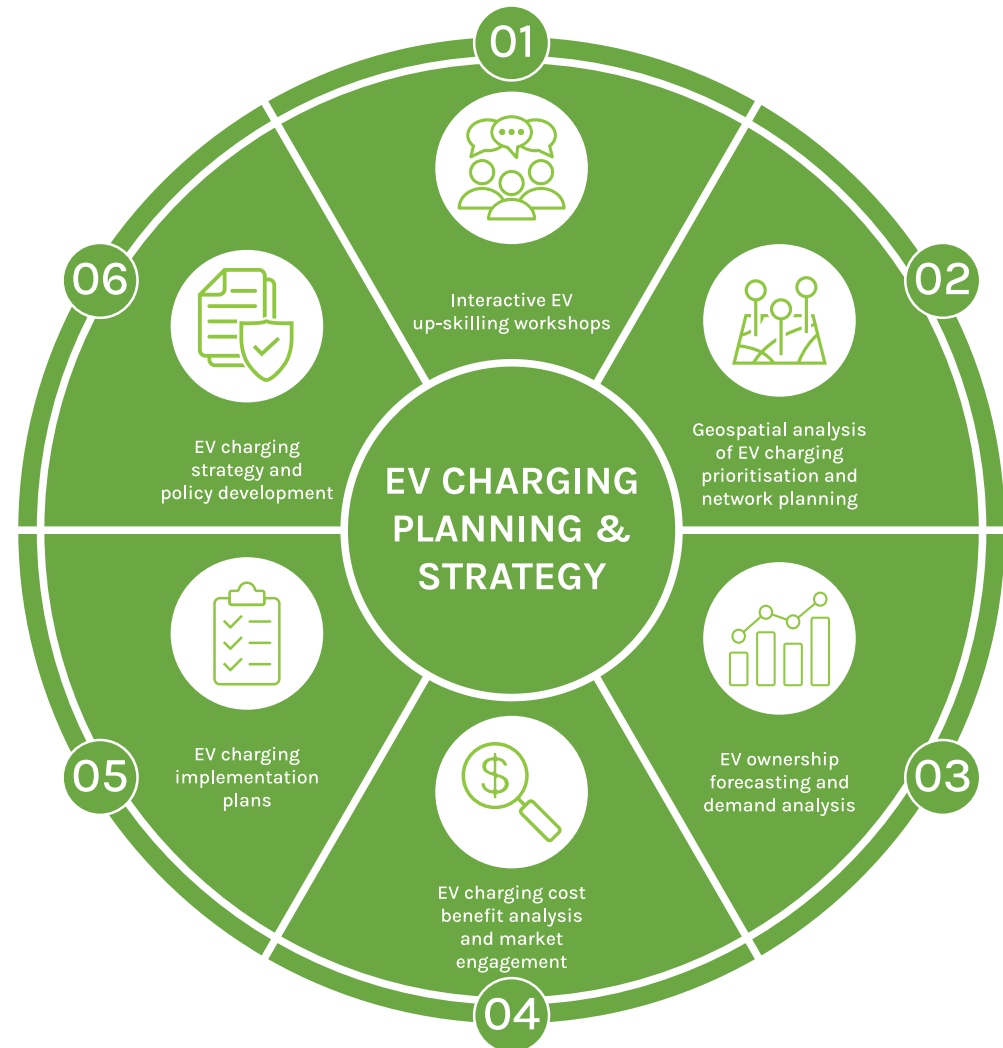


Figure 1 Our Services - summary

EV Charging Strategy and Policy Development

EV charging is an emerging area and many LGAs are yet to develop a clear policy. We work with LGAs to help define the position and role of local government in the development of greater EV charging opportunities. Our work in this area can include:

- Reviewing existing strategies or policies
- Creating new strategies, and policies for charging on public land
- Navigating the complexities of kerbside charging
- Guidance on pricing, parking restrictions, exclusion zones
- Advice on lease and licence agreements with commercial EV charging providers
- Assistance in articulating council's role in the development of charging opportunities
- Reducing risk to Council.



Figure 2 Previous public sector clients

Services

Up-skilling Workshops

We plan and facilitate individual and multi-LGA workshops focused on upskilling staff on EV charging.

Much of this work involves helping to define Council's role in EV charging and which unit within an LGA is best placed to lead and support the development of the charging network. We specialise in working with LGAs where many residents do not have access to at home

Our workshops are tailored to the needs of the Council and include a combination of presentation and workshop activities including:

- Different types of EV charging infrastructure
- Kerbside charging - best practice for local government
- Strategies for maximising the charging outcome, at least cost to Council
- Designing charging networks
- Understand how to optimise the user experience
- Public charging for residents without access to off street parking
- Methods for determining the scale of the challenge and siting considerations for kerbside parking.



Figure 3 Our director, Dr Elliot Fishman, facilitating an EV charging workshop with an inner city LGA

Geospatial Analysis

We advise all three levels of government on planning EV charging networks.

We have developed a framework and model that enables detailed spatial analysis of an LGA (or multiple LGAs) in order to identify areas that have a high latent demand for EV charging. We categorise these demand hotspots by charging speed, enabling councils to see what areas of their LGA's have the greatest need.

Figure 4 summarises some of the main factors used in our tool modelling variation in demand for EV charging in a metropolitan context. The result is a map that identifies areas of high potential demand, similar to the example shown in Figure 5.

-  Strategic importance
-  Homes without off street parking
-  Nearby traffic volume
-  Nearest public fast charger
-  Proximity to shops, services etc
-  Employment

Figure 4 Summary of key factors used in prioritisation of charging locations

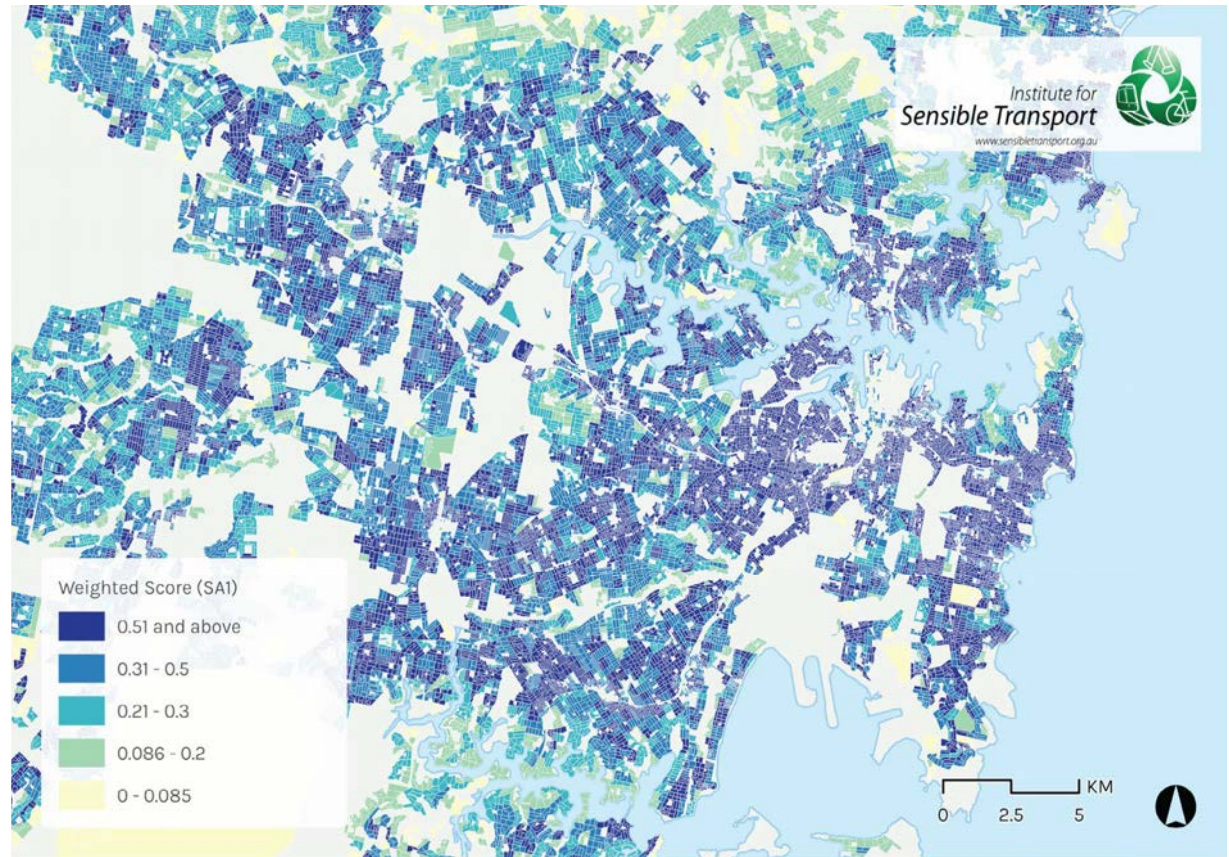


Figure 5 Kerbside charging demand analysis

EV Charging Roadmaps

We create EV Charging Roadmaps that enable Council to have a long term, data-led plan for the development of their EV charging network. An example is offered in Figure 6. This shows the areas with the highest demand for charging based on the number of homes without off street charging possibilities. This type of analysis is especially important in inner city areas where kerbside charging is critical.

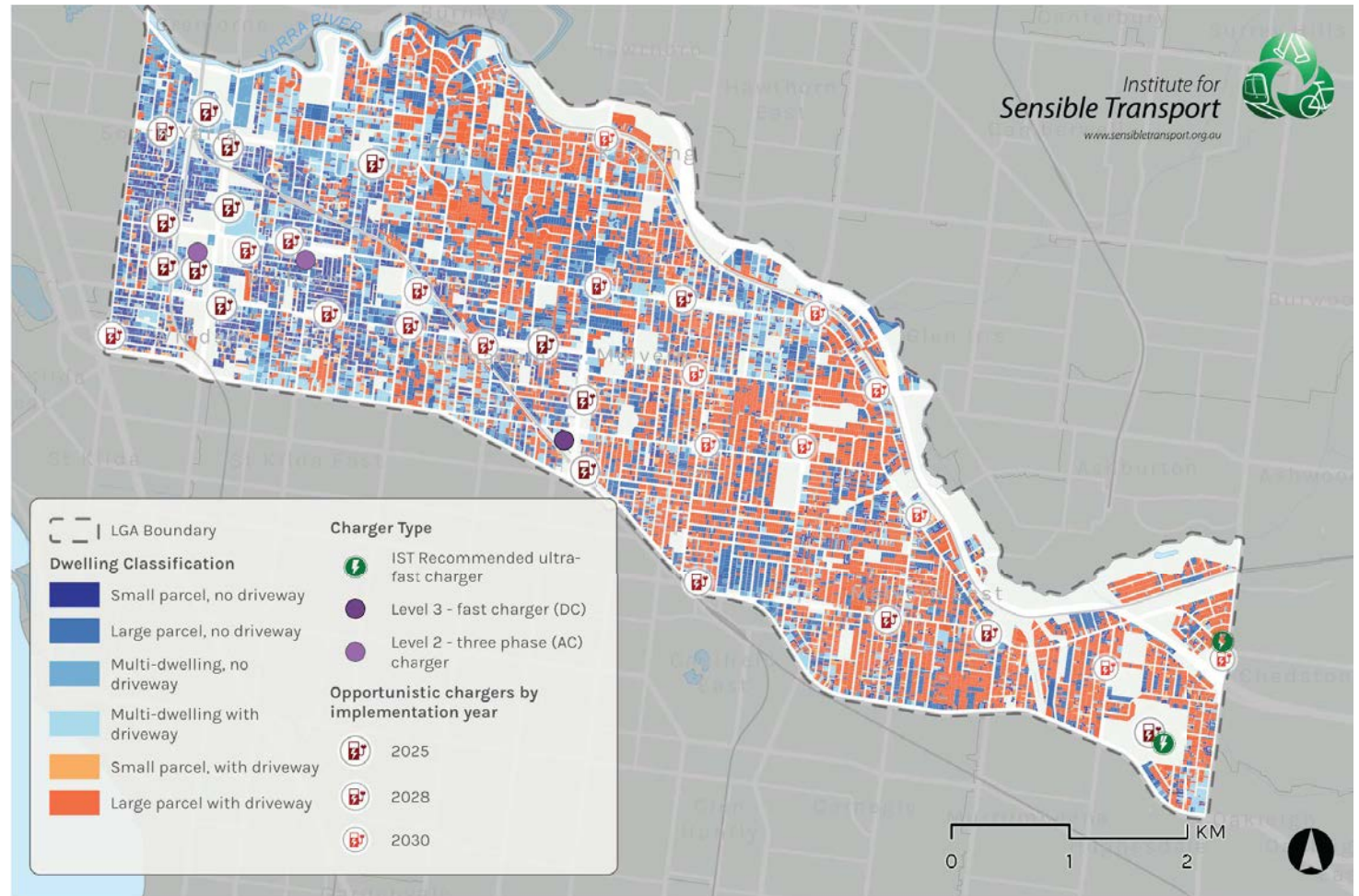


Figure 6 Analysis of kerbside charging demand

Forecasting and Demand Analysis

Our team forecasts EV ownership from the postcode level, right up to multi-LGA regions.

This forecasting provides LGAs with an understanding of how the demands for EVs and charging will grow over time.

Figure 7 offers a snapshot of our demand forecasting for EV ownership, using several scenarios.

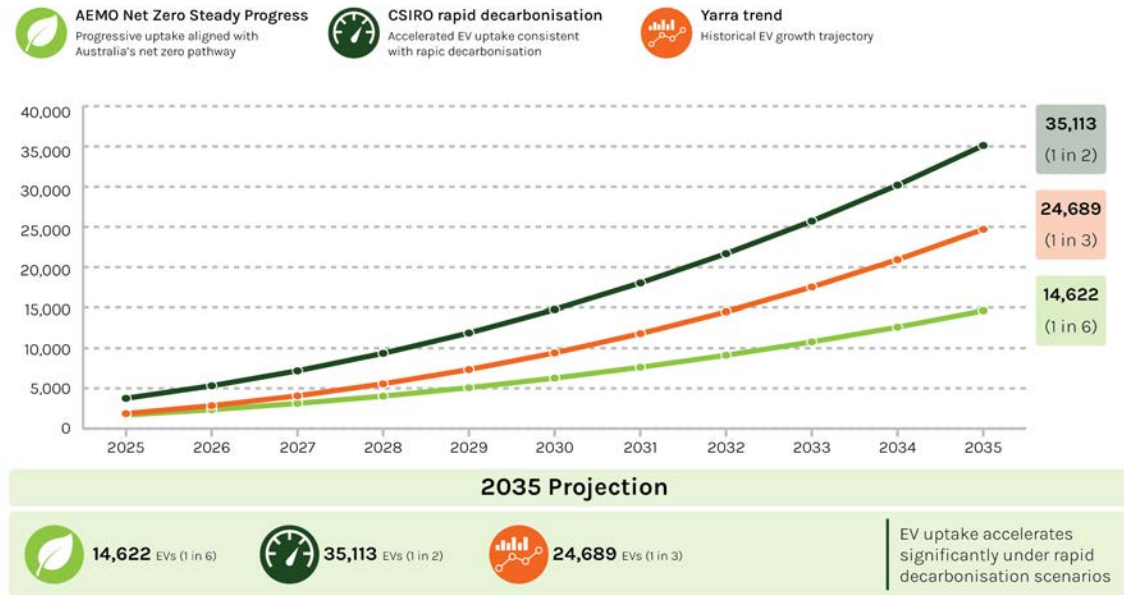


Figure 7 Forecasting the growth of the EV fleet, inner city LGA

Figure 8 outlines the step-by-step process we've developed to estimate future EV charging requirements. The results provide clarity for government on the *scale of change* required to support the EV transition. This includes a breakdown of the number of EV charging plugs required for private dwellings, public fast charging and slower, kerbside charging.



Figure 8 Steps in estimating future EV charging demand

Cost Benefit Analysis and Market Engagement

We've developed a cost benefit calculator for prospective EV charging sites. This enables Council to gain a stronger understanding of which locations in their network are likely to be more commercially attractive and provide opportunities for a equitable network.

We also advise local government on pricing strategies to strengthen the return on investment and build the network most capable of catering to current and future demand.

Figure 9 summarises our approach to cost benefit analysis of EV charging plans.

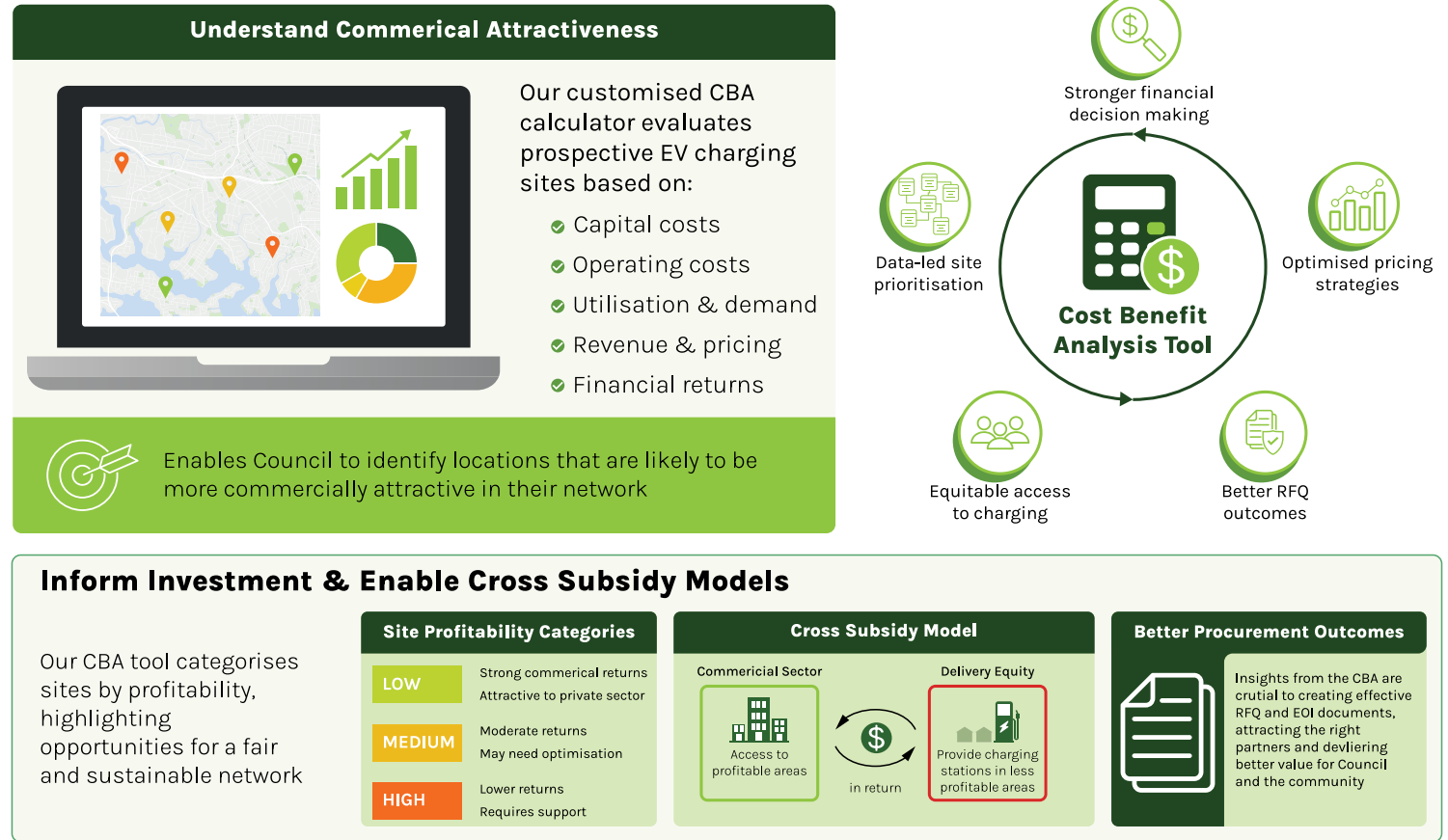


Figure 9 Our approach to cost benefit analysis of EV charging

Implementation Plans

Council's preparing to go to market with an RFQ or EOI can produce an *Implementation Plan* that provides a comprehensive roadmap. An Implementation Plan incorporates many of the activities above and has been summarised in Figure 10.



Figure 10 Implementation Plan - Key Steps

Project

EV Charging Strategy and Policy Development

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