Dodona Analytics

The **4 Stages for Success** in Site Selection

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The strategic selection of Electric Vehicle (EV) charging sites is critical to ensuring widespread accessibility, user convenience, and the overall success of the EV ecosystem. Industry expert and EV evangelist Chris Chamberlain shares four key steps in building commercially profitable sites, from their identification to construction.

As any Charge Point Operator (CPO) knows, each stage of the charge point selection process involves meticulous planning and execution, with only a small percentage of potential sites ultimately reaching the construction phase. So what are the key stages to consider?



Only by understanding and optimizing these stages, companies can enhance by improving the process, their efficiency and success rate in deploying EV charging stations.



Chris Chamberlain

Chris is our co-founder and VP of Strategic Accounts and new markets. He is an evangelist for eMobility and is passionate about helping the sector make better, evidence-based decisions with data science and AI.

9

Identification

The first stage in EV charging site selection is Identification. This stage involves locating "white space" on the map – areas currently underserved by existing charging infrastructure. Identifying these gaps is crucial for maximizing coverage and ensuring that EV users have convenient access to charging stations wherever they travel.

This stage may not be required if a specific list of potential sites is already available, either from a client or identified through prior analysis.



Site assessment; Identifying feasible and viable sites using Dodona Analytics

Site Assessment

Once a list of potential sites is established, either through white space analysis or client input, the next stage is a thorough site assessment. Site Assessment is a critical stage, where potential locations are evaluated for their feasibility and viability. This involves a thorough examination of various factors to ensure the site meets the necessary criteria for an EV charging station.

Viability: This evaluates the commercial viability of the site. Factors to consider include:

- **Traffic Patterns:** Is the location frequented by potential EV drivers? Will the charging stations be utilized efficiently?
- **Proximity to Amenities:** Are there restaurants, shops, or other attractions nearby where drivers can spend their charging time productively?
- **Competition:** How many charging stations are already present in the vicinity? Will the proposed site be able to compete effectively?

Feasibility: Here, the focus is on the physical suitability of the site. Key considerations include:

- Utility Infrastructure: Can the existing electrical grid handle the increased power demand?
- Land Availability and Permissions: Is there enough space for the charging stations? Are there any zoning restrictions or permitting hurdles?
- Accessibility and Safety: Is the site easily accessible for EVs? Is there adequate lighting and security measures for customers?

Failing to complete these evidence based checks and assessment will result in the wrong chargers going in the wrong locations i.e. they won't be profitable!

Site Acquisition

Once feasible sites are identified, the focus shifts to Site Acquisition. This stage involves negotiating with property owners, understanding zoning and regulatory requirements, and estimating the costs associated with developing the site. This stage also involves detailed financial modeling to determine the projected return on investment for each shortlisted site. Only locations with a strong financial justification move forward to the final stage.



Site Design & Construction

The final stage is the construction and installation of the charging station itself. This involves several critical tasks to ensure the station is operational and meets all safety and performance standards.

The Miss Rate is High

It's important to acknowledge the reality of the selection process. Due to various constraints, only a small percentage (estimated around 2%) of initially considered sites ultimately become operational charging stations. If we consider an optimistic scenario of a 2-5% go-through rate, an operator would have to consider at least 4,000 sites in order to be able to deploy 200.

This is where data and technology play a crucial role. With our advanced site assessment tool, we help improve the efficiency and consistency of your site selection process by:



By analyzing a broader range of variables, you can identify sites with a higher probability of success.

Ensuring consistency As opposed to multiple individuals searching for sites and ranking them subjectively, standardized scoring systems based on data-driven criteria ensure a consistent approach to site evaluation, leading to better decision-making.

Reduce manual work effort With automation operators can significantly reduce the time and resources required for site selection, freeing up valuable human expertise for other critical aspects of building a successful EV charging network.



Dodona Analytics is a leading EV Charging Optimization platform. We work with some of the most ambitious and successful Charge Point Operators across Europe and the US to help deploy tens of thousands of chargers every year. As Data Scientists and experts in Future Mobility, we are changing the way we move people, goods, and services, and we are passionate about building a better future.

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