

## Electrifying Destinations in Marin

Environmental Forum of Marin, Master Class 39 Project Proposal

Submitted by

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## Purpose

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To promote the use of electric vehicles in Marin County as a means of reducing green house gases associated with transportation choices in the County.

## Immediate Goal

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To produce a report that will provide:

- Information about distinct electric vehicle user groups (markets) and their needs;
- Recommendations to Marin municipalities and businesses to plan to meet the needs of these markets;
- An “electrifying Destinations” marketing plan to promote Marin cities and towns to visitors with electric vehicles

## Goal: (long term)

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The long term goal of this project is to provide a simple template for local municipalities and interested business partners to “plug into” the Electrifying Destinations infrastructure throughout Marin and perhaps the Bay Area.

# Background

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Cities and towns through out the world must find ways to reduce the green house gases associated with human activity. Reducing carbon emissions in all aspects of daily life is an urgent imperative. In Marin County 60% of greenhouse gases generated by human activity are associated with transportation choices. Transportation related GHGs in Marin County are proportionally higher than in other California counties due, in part, to Marin's largely suburban development pattern, winding small roads, and hilly topography, which promote the use of personal vehicles over mass transit. While "infill" development, planned in some parts of the downtowns and transit corridors of Marin's cities and towns, will reduce transportation related GHGs by encouraging increased walking, biking and transit use, in order to reduce these GHG levels further, while meeting the transportation needs of Marin residents, businesses, and government, transportation planning strategies will need to include the use of low emission personal vehicles: electric cars, trucks, scooters and bicycles. Electric Vehicles can be a viable component of Marin's strategy to reduce green house gases (GHGs) and our carbon footprint. Planning for Electric vehicle use in Marin is currently underway in Marin County and its cities and towns. This project will explore aspects of planning for and promoting the use of electric vehicles in Marin.

While Marin City and Town planners grapple with the question about how to best prepare for a future with EV' s there is a need to more clearly define the markets for these vehicles and the different needs for these markets. Given Marin's commitment to protecting and preserving our environment and "being green" -- and our "early adopter" culture -- there is a natural fit for promoting the use of electric vehicles. Additionally, promoting the use of EV's by visitors to the County is another opportunity that makes sense for Marin.

Marin County municipalities are planning for electric vehicle charging stations to service an anticipated public demand from electric vehicle owners. City and Town planners and staff are focusing on various siting and permitting issues:

- Location and size of parking spaces; parking ratio requirements;
- Financing installation, operation, and maintenance costs;
- Electrical requirements (high capacity and proximity to power source, trenching issues)
- Charger protection (bollards, wheel-stops, overhead protection, flood zones)
- Inspections
- Americans with Disabilities Act, ADA, accessibility and requirements

Addressing any one of these issues is fairly straightforward, but in aggregate, they quickly become very complex and (often) contentious.

Planners are also asking “Who will use these charging stations?” Studies of early adopter behavior show that owners of electric vehicles mostly charge at home at night; or perhaps at work during the day. This further complicates the decisions municipalities must make regarding where and why to site electric vehicle charging stations; and makes spending public monies and effort on these charging stations even more difficult to justify. It would probably be political suicide for a public official to see their valuable public parking spaces (which are in short supply) dedicated to electric vehicle charging but unused due to inappropriate siting and/or demand. Some guidance through the mire is needed.

# Opportunities/Challenges/Benefits

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## Opportunities:

One important component of this proposal is to define a set of so-called “Electrifying Destinations” that would (amongst other things) have electric charging capabilities which would draw tourists in electric vehicles to these particular locations. In other words, an Electrifying Destination *becomes* a destination for electric vehicle drivers. An Electrifying Destination therefore takes the charging station out of the realm of “public utility” and into that of a “tourist attraction”.

This is similar to the way boat owners view marinas. When boating recreationally, vessels often transit between marinas because of the services these marinas provide:

- Toilet facilities
- Local information and assistance
- Usually restaurants
- and often Grocery Stores and Break-down services

Electrifying Destinations can be similarly modeled. Recreational electric vehicle drivers (tourists) will want to drive from Electrifying Destination to Electrifying Destination, even if they don’t need to, for the services and simple sense of security these destinations offer.

Because electric vehicle drivers will be drawn to Electrifying Destinations, this provides us with an opportunity to up-sell local products and services to tourists at these Electrifying Destinations.

## Some foreseen challenges:

- Figuring out the simplest way through the regulatory and siting maze.
- Figuring out how to package the Electrifying Destinations experience in a standardized way, both for EV drivers and for hosting municipalities and businesses.
- Figuring out how to package the routes between Electrifying Destinations in a meaningful way (e.g., as per San Francisco’s 49-Mile-Drive).
- Figuring out how to provide marketing and/or up-sell opportunities to local businesses at Electrifying Destinations.
- Figuring out whether local businesses are interested in hosting Electrifying Destinations.
- Selling this idea to the Marin Convention and Tourist Bureau, and then figuring out how to sell this idea to the rental car companies who are buying electric vehicle fleets.

The benefits of these Electrifying Destinations:

- Draw tourist business to local Towns and Cities.
- Provide new sources of revenue to local Towns and Cities.
- Provide a public-private business opportunity to fund the construction and maintenance of these Electrifying Destinations.
- Provide a marketing opportunity for local Towns and Cities to show their commitment to Green Technologies.
- Provide a mechanism for Towns and Communities to “plug in” to a successful working model which regulates, finances, sites, and markets EV infrastructure.
- To help local Towns and Communities meet their greenhouse gas, noise abatement, and clean air targets.

## Scope/Milestones

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The tentative project scope includes:

- A Discussion of Target Markets for electric vehicles in Marin;
- Technical and Regulatory Requirements and Considerations for EV's, including EV charging station siting criteria, financing options, and model city ordinances;
- and finally, a Marketing Plan to promote the use of electric Vehicles and charging stations, and the patronage of local businesses near the stations.

At this point, we believe that, at a minimum, the City of Mill Valley will provide the pilot location for this project.

Milestones:

- 1-Feb-2012, Develop a detailed Project Plan.

## Size of team/Skills needed

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I think a team of 2-4 people would be reasonable. Applicable skills would be access to decision makers at Marin Convention and Tourist Bureau, Hertz, Zip, and MV Chamber of Commerce.

## External Partners/Sponsors

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- TBD