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MYGO-PASADENA

Demonstrating Small Electric Vehicles as Transit Connectors

Final Report

(Preliminary Draft Copy)

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Believing that personal mobility services represent one of the potential niche markets for two-wheel battery-electric vehicle's (BEV's) that can help address air quality and traffic congestion issues in urban areas while building demand for a small but growing industry, CALSTART launched a demonstration project in 2007 - entitled MyGo-Pasadena –to test this premise. Introduced to the public in March 2007, MyGo-Pasadena offered financial incentives to residents of Pasadena, California towards the purchase of 2-wheel BEV's and then transit ridership rewards to those purchasers who rode their BEV to their neighborhood light rail station. The goal of the project was to investigate the opportunities and challenges associated with encouraging commuters to use a vehicle other than a car as a transit connector. This Final Report details the results of the program which indicate that a small percentage of commuters may choose to abandon their cars for short trips to transit stations once they are properly informed of the availability and reliability of discounted electric vehicles, and the location of safe and enjoyable corridors on which to operate them.

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Preface

This report was prepared by WestStart-CALSTART. WestStart-CALSTART is a non-profit organization that works with the public and private sectors to develop advanced transportation technologies and foster companies that will help clean the air, lessen our dependence on foreign oil, reduce global warming, and create jobs. CALSTART, Inc. is the California operating division of WestStart-CALSTART. The data contained in this report includes public information and/or information provided by other organizations.

Acknowledgments

The Federal Transit Administration (FTA), Office of Mobility Innovation, sponsored the effort to compile data for this report. CALSTART would like to acknowledge the contributions from electric bicycle manufacturers and others that made this project and report possible.

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General Information about the First Mile Program

As new light rail systems and bus rapid transit services are developed in the United States, millions of people will remain unable to access public transit for their traveling needs. Many car-oriented people are unable or unwilling to walk over 1/2 of a mile to reach a new transit service,[1] and park-and-ride facilities are not always cost-efficient options. Parking guru Donald Shoup, in his book *The High Cost of Free Parking*, presents evidence that aboveground structured parking often costs about $10,000 per space and that underground parking often costs about $25,000 per space. There are better, more economical options available for commuters who live in the neighborhood of transit stations. WestStart-CALSTART's First Mile program works to integrate small and efficient Local-use Electric Vehicles (LEVs) into door-to-door transit solutions.

LEVs, such as electric bicycles, offer an exciting opportunity because they are a "smaller step" from the familiar car for short trips. And as a powered form of micro-transport, electric bicycles take less effort and are easier to operate than traditional bicycles. Building appropriate infrastructure at transit stations is likely to cost roughly only 10% of that for parking cars, and the operational cost for the user is nearly 10% of that of a car as well. But to foster usage of eBikes and other LEV's, work will need to be done to create better travel routes throughout a region's network of transit stations. We envision a "Transportation Toolbox" at transit stations that offers everything from eBikes, Segways and other LEVs for rent, as well as the higher price Flexcar service to help solve this first and last mile problem. Currently, milder climates are more suited to use of these LEV's but as they begin to prove themselves, it is anticipated that they will develop to accomodate more inclement weather.

It's an exciting time for this new era of Internet-driven multi-modal transportation that will enable reduced levels of car ownership and increase ridership on transit systems.

About This Document

This Final Report on the MyGo-Pasadena program is a critical component of our "Transportation Toolbox" concept and was developed with the knowledge and assistance of the Federal Transit Administration (FTA). The intent of this document is to provide an overview of the program and disseminate the results of this demonstration. The primary goal of the MyGo-Pasadena program, and indeed the First Mile program, is to integrate a new class of Local-use Electric Vehicles with public transit to enhance ridership. The secondary objective of the First Mile program is to work towards coupling various alternative transportation offerings into convenient intelligent multi-modal transportation systems that

promote smart growth, mobility substitution, improved pedestrian and bicycle amenities, carsharing, and transit to reduce the need for automobile ownership and dependence.

Executive Summary

U.S. auto-dependence poses a significant barrier to an increase in transit usage and contributes to traffic congestion, poor air quality and increased global warming. The integration of innovative technologies with traditional modal options may be the key to providing the kind of high-quality transit service that can effectively compete with the automobile in suburban transit corridors. Two-wheel, on-road battery electric vehicles (BEV's) are well suited to some of these mobility applications given their clean, quiet operation and small physical footprint. An increasing number of manufacturers remain committed to commercializing two-wheel BEV's including motorcycles, scooters and bicycles.

Believing that personal mobility services represent one of the potential niche markets for two-wheel BEV's that can help address air quality and traffic congestion in urban areas while building demand to support a small but growing industry, CALSTART launched a demonstration project in 2007 - entitled MyGo-Pasadena –to test this premise. MyGo-Pasadena offers financial purchase incentives towards 2-wheel BEV's and transit ridership rewards to those purchasers who ride their BEV to their neighborhood light rail station. The goal of the project is to investigate the opportunities and challenges associated with encouraging commuters to use a vehicle other than a car as a transit connector.

Funding for the project was provided in part through a grant from the Los Angeles County Metropolitan Transportation Authority with additional sponsorship by the City of Pasadena, Pasadena Water and Power, and the Federal Transit Administration. Preliminary conclusions indicate that commuters may choose to abandon their cars for short trips to transit stations once they are properly informed of the availability and reliability of discounted electric vehicles, and the location of safe and enjoyable corridors on which to operate them.

Introduction

Recent studies indicate that people are driving more than ever. Vehicle miles traveled (VMT) in California increased by 162 percent between 1970 and 2000.[2] What's more, congestion costs businesses approximately $17 billion per year and results in more than 665 million gallons of wasted fuel annually.[3] To address these concerns, the city of Pasadena has begun implementing a set of transportation and land-use policy efforts that allow people to live closer to mass transit and other car-free travel options. The city has set forth a guiding principle as part of its General Plan that envisions Pasadena as a "community where people can circulate without cars."[4]

It appears that the rest of Los Angeles may be following suit, the effect of which could reduce sprawl and petroleum consumption county-wide. In a recent op-ed article in the Los Angeles Times, William Fulton, a senior scholar at the School of Planning, Policy and Development at USC, opines that Los Angeles "is Pasadena-izing" -- becoming more of a collection of centers around which new housing (condos and apartments) and commercial spaces are being built.[5]"

These "smart growth" efforts have paved the way for the introduction of size-appropriate mobility solutions for people to circulate locally and connect to neighborhood transit nodes. In communities such as Pasadena with high-density housing and convenient access to transit, driving is becoming increasingly optional. For many, a 6,000 pound SUV may no longer seem sensible or economical for a 3 mile drive to a park-and-ride lot, especially where incentives exist to lure people from their cars. The purpose of this

report is to provide an overview of MyGo-Pasadena, an innovative demonstration project that tests this theory.

In short, the MyGo pilot project involves the administration of purchase rebates to encourage transit riders to buy a 2-wheel BEV from a local participating dealer, and then a corresponding dispensation of monetary rewards to incentivize participants to use their 2-wheel BEV's to connect to local transit stations in lieu of their single occupancy vehicle. The project was publicly launched in March 2007 and will conclude in early 2008. Preliminary results suggest that reliable technology and responsive maintenance support are critical to success.

Encouraging Alternative Connections to Neighborhood Transit Nodes

Research Methods

While Pasadena has been actively managing its growth so that its residents have quick access to car-free options, not everyone in the city is able to walk to a local transit stop. Many car-oriented people are unable or unwilling to walk more than ½ mile to public transportation[6]. And in some areas, population density is too sparse to support fixed-route transit services. According to a CALSTART survey performed in 2004, transit properties use park and ride lots as a primary tool to provide linkages with their long distance express routes[7]. Yet, building these lots and supporting them can be very expensive. Given these high expenses, in the survey, the transit operators placed a high priority on finding more cost-effective means to increase ridership. Clearly, there is a need for another transit option that operates in the short 'first mile' gap between large transit vehicles (buses and rail transit) and home. MyGo-Pasadena tests 2-wheel BEV's as that option.

An expanding number of companies are entering the 2-wheel BEV market in the US, but the majority of sales occur abroad. Global sales of e-bikes have climbed nearly 20 percent since 2005, a trend projected to accelerate especially in developing countries, where the middle class is rising. In Japan, over 100,000 electric bicycles are now sold per year by Suzuki, Yamaha, Honda and others. Giant Bicycles sold nearly 1 million electric bikes in China last year, but only 1,500 in the US. In researching this dichotomy prior to the launch of MyGo-Pasadena, CALSTART concluded that the poor domestic sales figure can be largely attributed to real and perceived safety concerns and high initial cost, and thus designed the MyGo program to address both of these barriers at the outset.

Research methods used in the development of the MyGo program included an on-board transit rider survey administered during peak commute hours on the Metro Gold Line to gather information on travel patterns and behavior. The survey was followed by individual phone interviews and two focus groups involving survey respondents to further explore the demographics of transit riders, their perceived barriers to EV usage, and potential factors for success.

On-board Transit Rider Survey and Focus Groups

The on-board transit rider survey provided valuable insight regarding the receptivity of transit riders to 2-wheel BEV usage for the "first mile" gap and their perceived barriers to this travel behavior change. The survey was administered to riders at each of the three Gold Line transit stations selected for the program. The stations – Sierra Madre Villa, Del Mar, and Memorial Park - were selected in consultation with LACMTA and City personnel based on the following factors:

- Level of parking congestion
- Availability of space for 2-wheel BEV parking or secure storage
- Demographics of surrounding area
- Ridership levels

The survey was distributed to Gold Line transit riders at their origin station in Pasadena and collected at Union Station in downtown Los Angeles which was the primary commuting destination station for most. Forty representative riders were selected out of the 350 surveys collected. The selected riders traveled between .5 and 5 miles to their neighborhood transit station. This was the radius that a putative MyGo

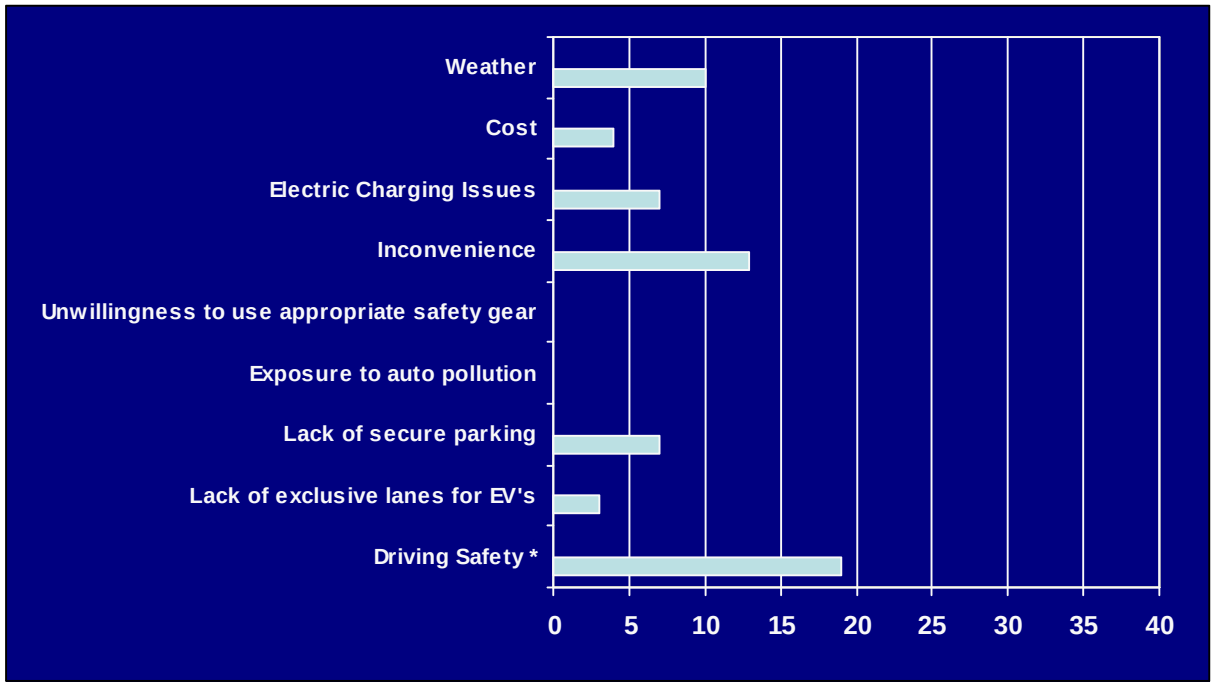

Figure 1: Perceived barriers of survey respondents to EV usage

member would travel and was selected to reduce the likelihood that future members would exceed the range limitations of the BEV's.

Driving Safety was the primary barrier of those surveyed. The concept of driving safety included lack of exposure to vehicle modes and concerns about vehicle reliability and maintenance. Additional barriers are shown above in Figure 1.

Twenty of the surveyed riders were invited to two separate focus groups consisting of 10 members each. The goal of the focus groups was to perform a 'deeper dive' on the survey results and to aid in creation of the program parameters since these riders were the potential target group for MyGo member recruitment.

When asked to give initial, overall feelings about the MyGo program, focus group participants were generally excited about the possibility of doing something to help ease traffic congestion and reduce

overall pollution. Several respondents mentioned that they believed from reading the website that one could not take the highways using this program, which limited its effectiveness in their opinion. Others expressed concerns about maintaining hygiene and appropriate work attire after riding a bicycle (helmet hair and pedaling in high heels were the most often mentioned).

The positives mentioned about the program were numerous. They included:

- **Reduction of Traffic Congestion**. Over half of the participants showed considerable enthusiasm for any program that would move cars off the road, especially during rush hour in the mornings and afternoons. Many said that they took the Gold Line due to issues of cost or convenience, but a few also mentioned that they didn't want to fight traffic—and that rush hour had expanded to be essentially all day and most of the evening.

- **Saving Money**. While a few respondents could not see past the initial cost of the vehicle itself, most understood almost immediately that switching to this program for initial leg of the commute would result in dramatic cost savings. These costs included parking fees, gasoline expenses and even in some cases the cost of the car payment itself. The fact that part of the cost the alternative vehicle was also being subsidized increased the cost-savings benefits in the minds of several respondents.

- **Helping the Environment.** Most respondents were quite environmentally conscious, showed a strong desire to reduce their carbon footprint, and said that they had looked seriously at hybrid and purely electric vehicles. They felt that any program that would enable them to reduce their use of an internal combustion engine would be a good thing for its intrinsic moral value.

- **Health Benefits**. Several participants mentioned that encouragement to ride a bike was a good thing, and that they could use the effort to help them get more physical activity. One respondent noted that the electric assist would help encourage her to use a bicycle to travel to and from the metro station because the trip home contained so many steep grades that she was barely capable physically of making the trip without an assist.

- **Splitting Lanes**. Two participants mentioned that scooters could split lanes in the middle of congested traffic, possibly reducing commute times.

- **Increased Sociality**. One respondent mentioned that he felt more connected and more socially open on a bicycle, rather than angry and distant when locked away inside a car.

Although the focus group participants were highly encouraged by all the positives mentioned above, they also registered significant concerns about the program. These concerns included:

- **Safety.** Safety was by far the largest source of worry registered by most respondents. With the exception of a few participants who said that they were frequent bike riders, participants almost universally said that riding bicycles in Los Angeles was extremely dangerous. Many participants said that they had been in close calls, or had friends or family who had almost been seriously injured while riding a bicycle on Los Angeles streets. Problems mentioned included drivers turning or changing lanes without watching for bicyclists and motorcyclists, people opening car doors without looking, and narrow canyon streets too narrow for two lanes of car traffic, much less pedestrians and bicyclists.

- **Lack of Familiarity.** Most participants said that they did not know how to use a motorcycle or scooter; this, however, was not their biggest concern. Many said that they had not ridden a bicycle in decades, and that they would be shaky using one again in the best of circumstances—much less in hectic Los Angeles traffic.

- **Cosmetic Issues.** As seen above, there were several respondents who were not enthusiastic about the prospect of arriving to work sweaty, with helmet hair or other unsightly byproducts of riding a bicycle to work. Most participants did not have facilities at their places of work that allowed them to shower or change clothes at the office. In addition, two women were concerned about pedaling a bicycle while wearing heels.

- **Theft & Security**. There was major concern expressed on the part of almost all respondents about the possibility of theft. They felt that the significant additional cost of one of these bicycles or scooters would make them high-profile theft targets, and would demand an accompanying security solution more effective than traditional bike locks and other mechanisms. When some respondents suggested storage in lockers at the metro station, many still remained unconvinced that the lockers would be adequately safe; however, lockers were considered superior to open-air parking. Participants were also nervous about leaving their bicycles or scooters on trains or the front ends of buses, fearing that they would be stolen by other passengers or by passers-by on the street.

- **Parking and Storage**. This issue went hand-in-hand with the theft and security issue. Some respondents were not certain where they would park their vehicles at the metro station, or whether they would be bring their vehicles with them on the buses and trains. Respondents trusted indoor parking solutions far more than outdoor ones, and locker solutions better than others. Some also had concerns that the trains and buses themselves would not be capable of adequately storing the vehicles, especially if the program became successful.

- **Lack of Available Bike Routes.** A few respondents expressed concerns that they would not be able to find acceptable bike routes to and from their metro station. Some respondents said that they would only want to travel on streets that had delineated bike lanes, and that they were not certain whether there even were such routes from their homes to their metro stations. Suggestions were made that the supporters of the program should provide maps of bike routes leading to and away from metro stations to help alleviate this problem. Also, respondents felt that only specifically illuminated bike routes would be acceptable to ride on during the dusk and evening hours.

- **Lack of Dual-Passenger or Storage Capability.** A couple of respondents said that they often took their children to school on their way to the station; for these people, a bike was considered impractical for their needs. Only a few participants felt that a bicycle or scooter (with its limited capacity for storing groceries and other items) would serve enough of their needs that they could legitimately see themselves replacing their car entirely—and many felt that the program might not be worth the investment if they could not do without their car entirely.

- **Night Time.** Concern was expressed about riding a bicycle or scooter at night due to safety issues; these safety issues were not limited just to driving safety and visibility issues due to darkness, also included personal safety issues of women (or even men) riding a bicycle at night to

metro stations in areas that were not considered perfectly safe. The arrival of winter daylight savings time changes made the prospect of using this program somewhat less attractive due to this fact.

- **Cost.** While respondents generally agreed that this program would pay for itself eventually, even if it did not replace their current car, there was a general consensus that the initial outlay of $500 or more would be too onerous a burden, especially given the benefits involved. When prices of well over $1000 came to be discussed, many respondents balked significantly, saying that either greater incentives must be found or that prices must come down substantially as the technology becomes more widely available.

- **Weather.** Although weather issues were rarely mentioned unaided by participants, they noted significant concern about this when the subject was raised by the moderator. Although some felt that winter weather would be a concern in this context—all participants were unanimous that they would not ride during rain or other inclement weather—summer weather actually received more attention. Several respondents said that they would not consider riding outdoors (especially peddling a bicycle) during hot summer weather exceeding 90 degrees. This was partly for reasons or comfort, and partly for the cosmetic reasons listed above.

- **Need for a Motorcycle License.** While this issue did not affect the two bicycles, of course, it was seen by many as a serious impediment to acquiring the scooter (with the exception of one female respondent who was enamored of the prospect of being able to tell her friends that she has a motorcycle license). Over half of participants were not familiar with the process of attaining a motorcycle license from the DMV and more specifically what tests were involved.

There was significant concern expressed about maintenance issues. First of all, respondents expressed concern about the lifespan of the battery and about wear and tear issues involved in the power cord, the charger and especially the power assist on the bike itself. Second, maintenance locations were also seen as a concern: they felt that if maintenance locations were few and far between, it would make the program significantly less attractive. They wanted a list of participating maintenance providers listed on the program's website and at other locations advertising the program. Third, they wanted assurance that maintenance costs would be paid in full or at least subsidized by the purveyors of the program. Respondents felt that all these questions and concerns should be answered up front and in a clear manner when discussing the program. Finally, two participants worried about their vehicles becoming outdated by future models, and wanted to be assured of discounts for possible upgrades.

Finally, the focus group respondents were asked their opinion of the three models of 2-wheel BEV's that were proposed to be offered in the MyGo program – two electric bikes and one electric scooter. Several respondents were also able to test-drive the models. Because of the strong emphasis on safety issues expressed throughout the groups, particular emphasis was placed on the availability of lights and reflectors on the vehicles. Most respondents seemed to be at least partially impressed with the number of these items displayed on the vehicles—but more was always felt to be better. They wanted to see a catalog of accessories available, including additional lights, reflectors and turn signals.

Participants also expressed a desire for increased cargo space. Saddle bags were suggested as a viable solution but the idea of a trailer was met with near universal derision. Several participants expressed a strong desire for a comfortable seat—or at least the availability of an upgrade through the catalog. A

desire for recumbent models was also expressed. Respondent concerns that their spouses or teenage children might not be able to use the vehicles were usually alleviated when they learned of the different size options available. The three sizes were seen as intuitive and adequate.

The more experienced bike riders assessed them more on weight than on any other criterion. In general, the extra weight of the power assist was seen as a minor concern, however. Participants were not concerned greatly with the style of the vehicles shown, preferring instead to focus on function over form. For all three vehicles, however, the styling was seen as attractive but not necessarily attention-grabbing. But since these vehicles were seen primarily as functional rather than socially significant, this was not perceived to be a major problem.

Neighborhood Corridor and Transit Station Enhancement Analysis

Driving safety to and parking safety at transit stations remained predominant concerns of the focus group participants, and thus they were chosen as the next two elements for research. In an effort to minimize the concerns over the perceived lack of safety about driving to neighborhood transit stations using a 2-wheel BEV, a corridor analysis was performed to disseminate information with future MyGo members via marketing materials regarding the condition of the streets, bike lanes, sidewalks, and neighborhoods immediately surrounding two of the selected Pasadena Gold Line stations: the Del Mar station and the Memorial Park station. This analysis evaluated posted speed limits, actual speeds traveled by cars, the general population of bike lanes (if any) and sidewalks in the area, and the physical condition of the roads, paths, and sidewalks. This analysis was completed through an evaluation of City speed limit maps and bike maps, as well through site visits to the transit stations.

Both stations were visited during rush hour and outside of rush hour to analyze the facilities, their usage, to speak with employees and officials at the stations, and to get a sense of the traffic within a half-mile radius. The analysis of the two study areas' surrounding conditions were combined due to the close proximity of the stations.

All of the streets and sidewalks in the half-mile radius around the two stations were in good condition. Some of the sidewalks were wider than others, and those along the faster roads had higher curbs, but these factors were likely to have little effect on the bicycle ridership.

Most of the listed speed limits in the area were quite low, often in the range of 25 mph, with traffic speeds approximating these velocities. However, while driving along the two feeder lanes along Interstate 210, both of which have painted bike lanes on the far right side of the street, it was noticed that the traffic speeds were easily in excess of the posted 35 mph. This is clearly due to the purpose of these streets, which is to feed traffic onto the highway. The traffic in these two locations, especially on the left side of the street, was moving at approximately 45 to 50 mph, which could be uncomfortable for any bicyclists using the demarcated bike lanes, even though the bike lane is on the far right of the street. No cyclists were observed using these two particular lanes.

There is an ample number of bike lanes located in close proximity to the stations on residential streets. These streets with their great width, bike lanes, and sidewalks, seem to be the best fit for the MyGo program because of their safety and generally pleasant rider experience. The cyclist can ride along the street or the sidewalk, with far less anxiety about running into vehicles or persons. However, on many of the streets, the bike route and parking lane were combined. These streets had signs which read "share the

road" but the parked cars did not allow very much lane to be shared (see Figure 2 to the right).

Figure 2: Bike route blockage within study area

An initial conclusion of the corridor analysis was to recommend that the MyGo marketing materials direct cyclists to use the more residentially-oriented streets during peak hours instead of the more heavily trafficked streets that may or may not have bicycle lanes. Each MyGo member was also given a personalized map indicating the best route from their home to their station, based on conclusions from this analysis.

In an effort to minimize concerns over the perceived lack of safety about EV parking at the neighborhood transit stations, a station enhancement analysis was performed to disseminate information with future MyGo members regarding current and planned bicycle parking infrastructure at the two stations. This analysis covered the two stations mentioned above, in addition to the third MyGo station, Sierra Madre Villa.

Most significantly for program purposes, a non-fee-based, enclosed public bike storage room recently opened at the Del Mar Metro station (see Figure 3 to the right). It includes enough racks to accommodate up to 26 bikes and is available on a first-come, first-serve basis. The room also has a video surveillance camera. The current estimated usage of the bike room is only two or three bicycles per day, but this is largely due to the make-shift bike parking using tables, hand rails, and anything else that can serve the purpose.

Figure 3: Del Mar station bike storage room

An initial conclusion of this station analysis at Del Mar was to recommend that the MyGo marketing materials (and the City) advertise the video surveillance of the bike room to assure bicyclists (and future MyGo members) of the security of the property. It would also help to prevent thieves and graffiti artists from impacting the property.

At the second station - Memorial Park - a non-fee-based bike rack exists on the City of Pasadena's property at the Holly Street Garage. Currently, it has three racks, serving a total capacity of six bicycles (see Figure 4 to the right). Plans were initially under way to add three to five more bike racks in the Holly Street garage, but those plans were abandoned by the City.

Figure 4: Current parking at Holly Street garage

The estimated current usage is approximately three or four bikes per day, but we also noticed five bicycles parked across the street to the senior living

center. Thus, it does appear that the availability for the MyGo program could be potentially limited by the current bicyclist usage, although it is unlikely.

An initial conclusion of this station analysis at Memorial Park was to recommend that the MyGo marketing materials (and the City) advertise the bicycle parking and security in the Holly Street garage. The fact that five bicycles were parked in unsafe conditions across the street would seem to indicate either a lack of public awareness of the bicycle parking, or a lack of desire to use the facilities.

Finally, the current condition of EV parking at the Sierra Madre Villa station was considered the most alarming. There were only six U-racks available for public bicycle parking on the ground floor of a six story park-and-ride lot. The location of the racks was somewhat remote and not well lit. Thus, a good portion of the MyGo funding was used to enhance this station with eight new bicycle lockers that adhered to LACMTA specifications (see Figures 5 and 6 below).

Figure 5: Bicycle parking at Sierra Madre Villa before MyGo Program

Figure 6: Bicycle parking at Sierra Madre Villa after MyGo Program

Vehicle Validation

As mentioned above, the focus groups participants were clearly worried about driving safety - a concept which not only included road safety, but also included unfamiliarity with the vehicles and concerns about their reliability.

In an effort to minimize the concerns regarding the robustness of the 2-wheel BEV's selected for the MyGo program and to provide a more detailed understanding of the vehicles to assist with the appropriate coupling of vehicles and participants, a technical validation of the vehicles was performed which evaluated their real-world range, performance, and battery capability when deployed in the program environment, namely the foothills of Pasadena, California. The analysis provided a focused assessment of the performance of the vehicles in the same or similar application and terrain that is addressed in the program to verify that they would withstand typical commuter travel patterns and behavior. The end results of the analysis were (1) a benchmarking of the performance parameters and (2) the creation of a Safety and Operating Guide that provided end-user training.

The two electric bicycles tested were the Giant Suede-E and the Tres Terra Europa (see Figures 7 and 8 below). Even though these vehicles represent two very different styles of electric bicycles, each with their own set of advantages and disadvantages, it was important to test them side by side, but it was noted

that each uses different power management methods, different battery chemistries and different drive systems. Further, there is an approximate $550 price difference between the two products.

Figure 7: Giant Suede-E electric bicycle

Figure 8: Tres Terra Europa electric bicycle

The Giant Suede E is a lightweight e-bike that offers the user unparalleled range, especially when used in conjunction with rider pedaling input. The Tres Terra Europa is a heavier bike, but it offers significantly higher power and torque for faster assisted and unassisted travel and hilly terrain. Additionally, the Europa comes equipped with a dynamo-powered head/tail light system appropriate for regular e-bike commuting.

The test methodology utilized in this evaluation was standardized so that both bikes were evaluated under similar conditions. Significant differences in capabilities were called out to underscore the differences in the bikes. Several performance characteristics of the vehicles were of interest and reflect each bike's ability to perform its mission, i.e., reliable short-range commuting. These performance characteristics included:

1. Unassisted speed
2. Unassisted range, flat, level course with no starts and stops
3. Unassisted range, flat level course, periodic starts and stops
4. Unassisted/assisted range climbing a constant slope hill
5. Assisted range, flat, level course with no starts and stops
6. Time to fully recharge the battery from a completely discharged condition
7. Time to recharge the battery to 90% capacity from a completely discharged condition
8. System reliability (lack of breakdowns or other shortcomings that would negatively impact the bike's ability to fulfill its mission)

In short, both bikes performed as advertised. The claims made in the literature offered by both companies were consistent with the performance characteristics experienced while using the products. No mechanical or electrical breakdowns were encountered. Both bike were considered to be reliable transportation alternatives for short range commutes under favorable weather conditions. Both bikes were also easy to use and maintain, even for a novice rider.

The only aspect of either bike that needed improvement is the State-of-Charge indicator (SOC). The SOCs on both bikes provide potentially misleading information to the rider. This shortcoming poses the risk that the rider may believe that either bike has significantly less range capability than actual. This

can cause great concern for a novice rider who is suddenly faced with the prospect of having to pedal a relatively heavy electric bike back home.

Until such time as more sophisticated, more accurate state-of-charge indicator technology is developed and integrated into electric bicycles, it was deemed critically important for the MyGo members to be thoroughly versed on the limitations of the current systems. A Safety and Operating Guide with this information (and more) was created and distributed to all MyGo members. Placing a 2-wheel BEV in a multi-user environment means that many users are not familiar with the technology and don't know how to use or care for the vehicle properly. The Guide explained to the users how to optimize performance and stay within the range limitations. In addition, the participating MyGo dealers were required to give new members product orientation training and each member was required to verify that they had read and understood the Safety and Operating Guide.

Project Details

Project Launch and Participant Outreach

Once all research had been completed, the project was ready for its public launch. This effort began with an extensive marketing and public outreach campaign that was divided into two distinct efforts: (1) the establishment of the participation process, and (2) participant identification and outreach.

Final products of these efforts include an eight page web site at www.mygo-pasadena.com which allows potential participants to gather more information about the program and to enroll online; the development of a recognizable logo/brand identity and associated marketing materials to be hand-delivered at transit stations and via direct mail; and the organization of local orientation events that allowed existing and potential MyGo participants to road-test the electric vehicles before purchase.

Establishment of the Participation Process

The first step was to create an easy-to-use procedure for the public to enroll online and to ensure that vehicle purchases and rebates were carefully coordinated between the CALSTART project manager, vehicle vendors and participants. To avoid liability and ensure a high level of service and support, participants purchased their vehicles directly from select local vendors.

This effort involved two sub-tasks:

1. **Logo, Brochure and Website Development** : The MyGo logo was designed and an eight page public website was created at www.MyGo-Pasadena.com. The website is freestanding but hosted by - and accessible through - the existing CALSTART website. A marketing brochure was also created and is available in hard-copy format (tri-fold) and available for download (PDF format) on the new web site.

2. **Establishment of the Application Process and Disbursement of the Subsidy through a Vendor Agreement**: If a person is interested in joining the MyGo program, they must submit a short online application via the website to determine contact information and a

Figure 9: MyGo-Pasadena brochure

qualifying survey that provides data regarding current travel behavior, vehicle ownership, origin/destination transit station, and vehicle of interest. After registering their interest, applicants are mailed a Users Agreement and an Orientation package. The Orientation package includes the following:

- Instructions on participation,
- List of approved vendors for the program,
- Users Agreement,
- Liability waiver form,
- Safety and Operating Guide
- Personalized map indicating the best possible path according to available bike routes from applicant's home to their selected transit station
- Map of the selected transit station indicating the location of available bike parking
- Branded give-aways (license plate frames, t-shirts, bumper stickers, etc)

In order to alleviate concerns regarding the high initial cost of the 2-wheel BEV's (at least somewhat), each person who enrolls and qualifies for the program automatically receives an instant rebate of $500 when they purchase their electric bicycle directly from a participating local vendor. The vendor then invoices CALSTART to be reimbursed for the subsidy within 30 days. To qualify for the program, participants must pledge to use their e-bike for at least two days per week to commute to one of the selected Pasadena transit stations. In return, the participant automatically qualifies for the Bronze Level reward and receives an additional $10 per month in addition to the instant rebate. Those participants who can commit to more commuting days can earn larger monthly rewards for exceptional usage (see Table 1). To ensure the subsidies are being properly applied, an enforcement procedure was developed that involves bi-monthly on-site visual checks at the transit stations to make sure that participating vehicles are being utilized for the agreed upon application of the program.

Commuting Level	Usage Performance	Amount Awarded
Bronze	Use e-bike to commute to a Gold Line station 2 times a week from date of initial purchase until December 31, 2007	$10 per month
Silver	Use e-bike to commute to a Gold Line station 3 times a week from date of initial purchase until December 31, 2007	$20 per month
Gold	Use e-bike to commute to a Gold Line station 4 times a week from date of initial purchase until December 31, 2007	$30 per month

Table 1: MyGo-Pasadena membership levels

Participant Outreach and Identification

An extensive marketing campaign was then launched to help promote the program and secure participation. Flyers, posters and banners were produced for direct mailing to commuters and distribution at transit stations.

As part of the initial outreach effort, there were several One-Day "Ride N Drive" events in which interested parties were able to test-ride the MyGo vehicles, complete their application and users

agreement, and learn how/where to purchase their vehicle. Other community outreach sites included area employers, businesses, school campuses, and downtown Los Angeles workers via contact with the Employee Transportation Coordinators of major corporations.

While these events provided a great opportunity to publicize the program, a more sustained marketing effort was required to continually attract new members. The program generated a significant level of earned media and attracted several articles in major media and online sources such as the Pasadena Star News, Pasadena In Focus, International Herald Tribune, Sustainable Industries Journal, Worldchanging.com, and Greenoptions.com.

As the program progressed, marketing efforts to existing MyGo members became increasingly important. This included creation of a "MyGo-getter" electronic newsletter and a Google discussion group for MyGo members to discuss the rewards, pitfalls, and lessons learned when using 2-wheel BEV's to connect to transit.

Membership Profile

Survey Approach and Results

To help characterize the MyGo membership, all 41 final members were requested to complete two online surveys at different points during the program period. The goal of the surveys was to gather information about the users' transportation behavior at the outset of the program, and then compare that data against later surveys after the users had participated in the program for several months. The first survey was completed in July 2007. A summary of the responses follows:

- Of the 24 respondents in this first survey, only 10 (42%) were already using the Gold Line before participating in the MyGo program. Thus, the MyGo Program was able to recruit 14 (58%) new users of the Gold Line out of their vehicles and onto public transit on a consistent basis, resulting in a reduction of vehicle miles traveled and improved air quality.

- 21 (88%) of the 24 respondents use the MyGo vehicle outside of their regular transit commute. Thus, the MyGo program has produced environmental collateral benefits outside its intended purpose; it has provided the members with the ability to access other local services (i.e.: shopping, errands, places of worship, etc.) without the use of their car. This also results in mitigated city congestion.

- On average, it takes a MyGo member approximately 60 minutes to arrive at their destination. When not using the MyGo vehicle, it takes them between 45 and 50 minutes. On average, the program adds between 10 to 15 minutes of trip time each way, or 20 to 30 minutes round trip.

- MyGo members were asked about the performance of their e-bike so far. If the bike had performed very poorly, they were to give it a "1". If it had performed to an excellent level, they were to give it a "10". The median response landed at 8.5, which indicates that the majority has found their e-bike performance to be very strong.

- In terms of socio-economic background, Caucasian transit riders are the most heavily represented at 71% of the 24 respondents; 71% are male, and 29% are female; the average age is 43 years; the largest single household income range was between $50,000 and $75,000, including nearly 30%

of the MyGo members. The second most frequent household income range was between $75,000 and $100,000, and the third was between $100,000 and $150,000; and finally, nearly (96%) the entire group of respondents has some college education and 64% of the respondents have a bachelor's degree or greater.

One important takeaway from this first survey data is that MyGo members were more likely to have high levels of education and household income than the average Gold Line rider, but this is typically true of any new service that initially appeals to the early adopter. While the program offers a large upfront subsidy on the price of a new 2-wheel BEV, it still requires significant capital outlay usually stemming from discretionary income. It is hoped that over time, as the price of these vehicles diminishes, the characteristics of the MyGo members will begin to more accurately reflect the population of Gold Line riders.

A second survey was conducted in October 2007 and a summary of the most significant responses follows:

- 81% of the members intend to use their e-bike in conjunction with transit as their primary mode of commuting even after the financial incentives have been terminated.

- 46% had *never* ridden a bicycle prior to the MyGo program and 73% now ride a bike "far more often" since joining the program. The MyGo e-bikes have appeared to ease the transition from car to bicycle.

- Performance levels of the ebikes diminished slightly as the program progressed. On a scale of 1 to 10, most of the respondents (27%) in this second survey reported that their e-bike performed at a "7" – with 1 being very poor and 10 being excellent. The median response of the first survey ranked e-bike performance at an 8.5.

Answer Options	Response Percent
1 (very poor)	3.85%
2	0.00%
3	3.85%
4	0.00%
5	11.54%
6	15.38%
7	26.92%
8	15.38%
9	11.54%
10 (excellent)	11.54%

Table 2: E-bike Performance – 2nd Survey Response

- When asked how their bicycle battery performed – "Good, "OK," or "Not as well as expected" - the respondents were almost evenly split on this issue. Challenges associated with e-bike performance will be discussed further in the next section.

Answer Options	Response Percent
Good	38.46%
OK	30.77%
Not as well as expected	30.77%

Table 3: Battery Performance – 2nd Survey Response

Vehicle Performance

The first 20 e-bikes sold into the program performed excellently and customer satisfaction was very high for the first 6 months. Both models met projected performance standards. It wasn't until the end of August that the first set of challenges arose regarding the vehicle performance of one of the e-bike models, the Giant Suede-E. The problem stemmed from a manufacturer defect concerning the protective thermal cut- off switch. Three people were forced to return their e-bikes to the dealer for a refund of the purchase price. Four others retained their defective e-bikes with the hope that the dealer could arrange for a repair. The defect was a warranty-covered issue and all the affected bicycle owners were contacted with the promise that their vehicles would be repaired as soon as the dealer received the replacement parts.

In the meantime, to counter the problems with the Giant bikes and ensure that there was functional product available for new MyGo members, several buyers who were forced to return their Giant were offered an even greater rebate on the more expensive Tres Terra to counter the out-of-pocket difference in price of the two models.

But technical performance issues regarding the Giant Suede-E persisted in September despite continued efforts by the CALSTART Project Manager and the dealer to seek resolution with the manufacturer. Part of the problem was likely due to the fact Giant intended to discontinue the Suede-E model at the end of 2008. Due to the continuing problems with the bike and lack of a speedy solution, the dealer was forced to suspend all sales of the Suede-E.

At this point, the Tres Terra Europa also begun to experience technical difficulties regarding battery life, but the locally-based manufacturer was extremely responsive to MyGo members' needs – even going so far as providing new replacement batteries and bicycles free of charge. With regard to this model, it is fairly common to see first generation products experience some sort of functionality issue despite CALSTART's attempts to validate the model prior to program launch. Tres Terra was urged to properly identify the technical problem and take action to implement a fix. The company is confident that the new shipment of their product, which was due to arrive in February 2008, should be fully functional with virtually no quality problems.

Consequently, due to lack of reliable product to purchase in the Pasadena environs, the MyGo program was shut down one month premature to its projected end date, in November 2007.

Business Case Analysis

This analysis will illustrate how the MyGo-Pasadena program provided hard and soft benefits to its key stakeholders – specifically, the transit agency, the end-user, local employers and city government –all of which can increase significantly upon regional replication of the system. In short, the program can allow the transit agency to save on parking construction costs, the end user to save on car ownership/operating costs, and local governments and large employers to comply with certain municipal and state regulations.

Transit Agency

There are currently 47 car parking lots that serve the entire Los Angeles County Metrolink / Metro Rail system. Most Metrolink, Metro Rail and transit stations—due to limited parking availability that must be reserved for their customers—are *not* Park and Ride lots in the technical sense. Rather, the parking there has been funded by LACMTA (and in some cases, the city) and is strictly for use by Metro bus or rail riders and not for matching up with carpool, vanpool or buspool partners. The cost of obtaining land, constructing, and maintaining these customer parking lots is an enormous expense for the transit agency, but one that traditionally has been assumed as part of the cost of doing business and the best way to satisfy a vocal constituency. And generally, park-and-ride lots are straightforward to develop and remain in the control of the transit agency through land purchase, design, construction, and operation.

These parking facilities are often called "incentive parking" because they allow commuters to leave their personal vehicles in a lot and transfer to the bus/rail system for the rest of their trip, in many cases *free of charge.* Only 23% of the parking lots that serve the LA Metro system require payment to park (11 out of the total 47). Metro provides these lots as a collateral, subsidized benefit of using the transit system. In return, the agency expands vehicular access and extends the reach of the system, but also must absorb the majority of the cost.

Along the Pasadena Gold Line extension alone, there are a total of 1,731 parking spaces available for transit commuters (See Table 4 below). Because, in many cases, expansion of the parking supply

Gold Line Transit Station	Number of Parking Spaces
Fillmore	131
Del Mar	600
Memorial Park	0
Lake	0
Allen	0
Sierra Madre Villa	1,000
Total	**1,731**

Table 4: Number of parking spaces available for Gold Line commuters

requires building expensive new parking structures, the cost per new space can exceed $25,000 (see Donald Shoup, *The High Cost of Free Parking)* . Building 1,731 parking spaces assuming that

general cost per space results in an avoidable $43,275,000 expense for the transit agency. Much of that figure is comprised of land acquisition costs since surface parking requires about 300 square feet of land per space (about 124 spaces per acre). But as land becomes more scare and the parking inventory shifts to structures from surface parking, permit fees will continue to increase dramatically and potentially offset the savings in land acquisition. Figure 10 below illustrates how an alternative commuting scenario like MyGo results in significantly less construction *and* operating costs than any of the other standard transit access services.

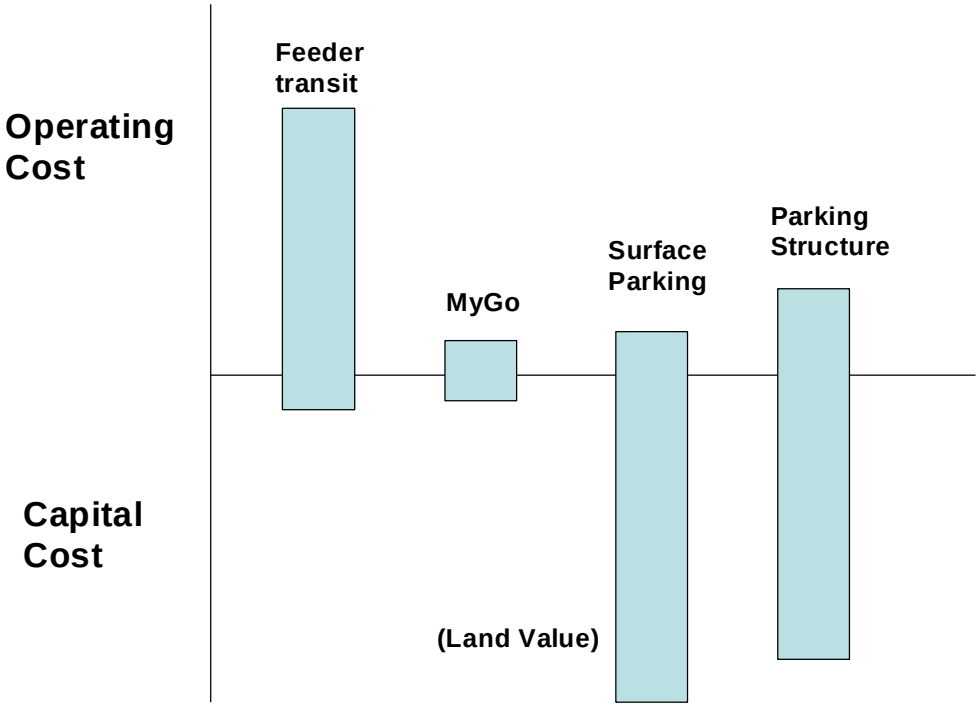

Figure 10: Operating vs. Capital Costs for Transit Access Services

And unlike most parking spaces, there is very little turnover of the park-and-ride space during the day since most people park in the morning and return after a full day of work. In essence, the $25,000 parking space amounts to an overpriced storage unit for one car for one day.

A recent study performed at the University of Colorado, Boulder calculated the annualized costs of building a new two-story parking structure on an existing surface lot (see Table 5 below). The results are remarkable. According to the study, it costs 2 ½ times as much to accommodate an additional person in the parking structure than to shift one person from driving to an alternative mode. The total annual savings to the campus, compared to providing 350 net new parking spaces, was approximately $550,000.

Number of spaces in new structure	295
Number of spaces in existing lot	147
Net number of spaces added	147
Cost per space for construction	$12,000
Contingency & bond issue costs	$3,000
Cost per space to build	$15,000
Projected construction cost	$4,422,871
Cost for interest	$3,605,205
Total cost to build and finance	$8,028,076
Annual debt service payments	$401,403
Annual cost per added space	$2,723

Table 5: Comparison of parking structure costs at University of Colorado, Boulder

As illustrated in Table 6 below, it costs $860 per year to add an additional member to the MyGo program (excluding any program management costs which should diminish significantly as the program is replicated). This figure assumes a $500 purchase price e-bike rebate, and one year of $30 monthly transit ridership rewards. Even when adding on the cost of optional parking infrastructure for alternative vehicles - such as bike storage which can amount to nearly $1,500 per locker for purchase and installation - it appears to be more cost effective to invest in alternatives that get people out of their cars for the short trip to their neighborhood transit station. It should be noted, however, that installing one bike locker for each MyGo member is *not* essential. For example, CALSTART created a shared locker system at the Sierra Madre Villa transit station where 8 members effectively shared 4 lockers. Each member was given a 'master key' to a 'chit key vault' installed at the station which held the individual locker keys. When the member arrived to park her bike, she opened the vault with her master key and selected one of the available locker keys in the vault. If there was no key, then there was no locker available. However, this rarely (if ever) happened since most members commuted on alternating days or hours. No member commuted 5 days a week and most commuted 2-3 times per week. Several members also chose to take their bike on the train with them which resolved "last mile" issues as well as parking concerns at the origin station.

MyGo Service	**Cost to Funding Entity for One New Member**
Purchase price rebate	$500
Monthly transit ridership reward (max – 4x/week)	$360 per year ($30/month)
Total:	**$860 per year**
Optional bike locker	$1,500
Total:	**$2,360** (one time cost)

Table 6: Inventory of MyGo Costs to add one new member (excluding program management costs)

But since a MyGo program cannot realistically replace a 1000-space parking lot, an ideal strategy would involve some combination of investment in new parking and equal or larger level of investment in transportation demand management measures that would minimize parking demand.

End-User (Consumer)

The economic benefits of the MyGo program to the end-users (or "members") become stronger as the price of oil per barrel rises. According to AAA, the nation's largest organization for motorists, the cost of owning and operating a new vehicle in 2007 was 52.2 cents per mile nationally, or $7,823 per year, when driving 15,000 miles annually. This cost includes the price of fuel, maintenance, repair, tires, insurance, financing, licensing, registration, and depreciation. (For residents of Los Angeles, the total cost is estimated at $10,604, with insurance making up $3,225 of that amount, according to CNNMoney.com). Fifteen thousand miles driven annually breaks down to 288 miles per week, or 58 miles per day for a 5 day work week. Fifty-eight miles a day is a bit higher than the average mileage replaced for a typical MyGo member who mode-shifted from a single occupancy vehicle to the e-bike/transit package, since it is approximately 34 miles round trip from Pasadena to downtown Los Angeles, which is the most common destination of the MyGo members. However, the AAA figure provides a good baseline estimate of the cost of owning and operating a vehicle. Fuel prices in the AAA study were based on the fourth quarter 2006 U.S. price for regular grade fuel, which averaged $2.256 per gallon. Annual cost savings are likely to be greater for California residents due to the elevated price of gasoline.

While the cost of owning and operating an e-bike is negligible (less than 4 cents per mile), the total yearly savings of the MyGo commuter package must take into account the cost of a monthly Metro pass at $62/month, or $744 annually. It should be noted, however, that this cost can often be offset by a "parking cash-out allowance" which is mandated by California state law and which requires employers in Los Angeles county to offer their employees a cash allowance equal to the cost of the company-paid parking space, which can sometimes amount to as much as $150/month depending on parking scarcity (California Health and Safety Code § 43845). The intent of the law is to reduce vehicle commute trips and emissions by offering employees the option of "cashing out" their subsidized parking space in favor of taking transit, biking, walking or carpooling to work. The law covers public and private employers that have at least 50 employees and that offer free parking in a leased lot. If as Donald Shoup, a professor of urban planning at UCLA concludes, 17% of all drivers offered cash in exchange for their free parking space will give up their vehicles, then an additional transit ridership reward (such as the one offered in the MyGo program) can increase that participation percentage to an even more meaningful amount.

Other available commuter incentives in lieu of parking subsidies could include (1) travel allowances, which are financial payments provided to employees instead of parking cash-out, and (2) transit or rideshare benefits, which are free or discounted transit fares provided to employees. In Los Angeles, these benefits usually amount to about $50 per month and are tax-exempt up to $100 per month in the U.S. which has motivated an increasing number of employers to offer transit benefits as an alternative to parking benefits.

According to a 1995 TRB employee transportation study that presented case studies of medium-sized employers, parking charges are found to be the most effective Transportation Demand Management (TDM) strategy in urban areas where transit service is good and where parking is often expensive and scarce. On the other hand, in suburban areas, where transit access is often poor and where parking is usually plentiful and free of charge, generous alternate mode travel allowances are found to be necessary ingredients in successful TDM programs.

The TRB study showed that increasing economic incentives can, in fact, be quite effective in shifting the mode of travel away from Single Occupancy Vehicles. A graph from the study below illustrates that SOV travel declines fairly rapidly as economic incentives for other modes increase (see Figure 11 below).

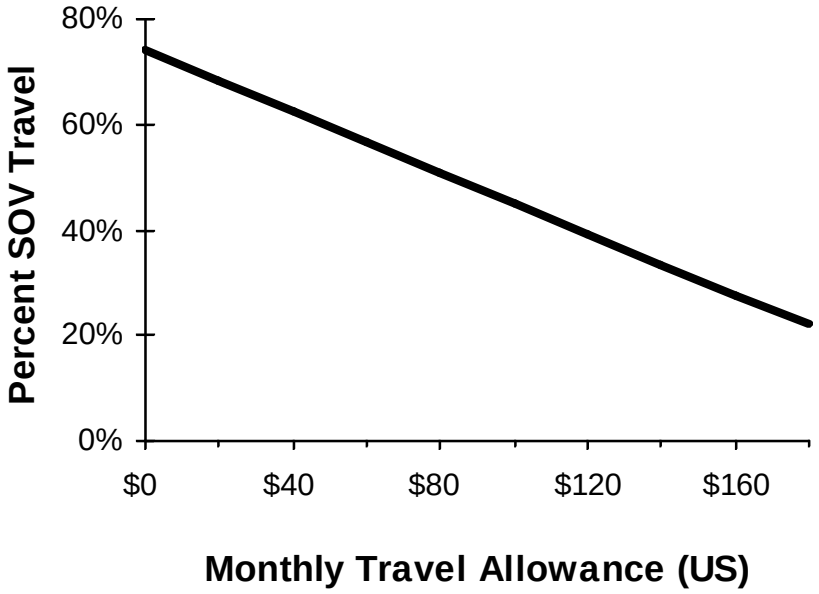

Figure 11: Effect of Economic Incentives on SOV Rates[8]

In sum, a MyGo member could conceivably earn $100 or more per month in combined subsidies (e.g., a $70/month parking cash-out allowance from their employer plus a $30/month MyGo transit ridership reward), while also saving approximately $650/month in car costs. Even if you include a factor for "lost time" for using transit, the MyGo member still comes out ahead economically. On average, it takes a MyGo member approximately 60 minutes to arrive at their destination using the e-bike/transit package. When not using the MyGo package, it takes them between 48 and 50 minutes. Thus, using the program adds approximately 10 minutes of trip time each way. Assuming the member earns $30.00 per hour (annual salary of $62,640) or 50 cents per minute, it costs $5.00 in time to take the Gold Line one way instead of an SOV. A one way Metro fare plus this "time is money" factor equals $6.25 per trip ($1.25 fare + $5.00 = $6.25) or $12.50 per round trip. Assuming the average transit commuter rides the train 20 days per month round trip, his "lost time" factor is approximately $250 per month or $3,000 per year. So even without subsidies and including this loss of time factor, MyGo members can still save as much as $4,000 per year on spared vehicle ownership and operating costs alone by shifting to the MyGo program, provided they give up their primary or secondary car in favor of transit. (See Table 7 below).

Possible Subsidies or Savings *per Month* (Full-Commuting MyGo Members)	Approximate Amount
• Parking Cash-Out, or • Travel Allowance, or • Transit Benefit.	$70
• MyGo Transit Ridership Reward	$30
• Saved Auto Owning/Operating Costs	$650
• "Lost Time" Factor	-$250
Total:	**$500**

Table 7: Possible Subsidies or Saving per Month for "Full-Commuting" MyGo Members who give up their primary or secondary car

The business case analysis for those MyGo members who shifted from park-and-ride lot users (rather than full door-to-door commuters) is not as compelling because the amount of vehicle miles replaced is significantly smaller. A minority of the members (42%) were driving their SOV a maximum of 5 miles, one way per day, to their neighborhood park-and-ride lot before boarding the train for the remainder of the trip. Certainly, there are commuters who drive much further to use a park-and-ride lot, especially for those lots located at the end of a transit line, but the MyGo members could not live further than 5 miles away from a station in order to stay within a reasonable biking distance from home and to stay within the range limitations of the e-bike battery. Thus, these members were only offsetting approximately 10 vehicle miles per day (round trip) for a maximum of 4 days per week, which equals 2,080 miles per year. At 52.2 cents per mile, this amounts to $1,086 saved per year in car costs. Yet while operating costs such as gas, oil, maintenance, and tires are incurred for every mile driven (and can be significantly reduced by minimizing time spent behind the wheel), ownership costs such as taxes, registration and insurance are incurred simply by owning a car, regardless of how often you drive. So the only way to reap the full economic benefits of participation in the MyGo program would be to give up car ownership (or second car ownership) entirely. Park-and-ride lots only provide modest reductions in consumer costs, local road traffic, pollution, and energy use, since a local (highly polluting cold-start) automobile trip is still made.

Financial gain is not the only driver for an alternative commuting program such as MyGo. As mentioned above, impacts on the quality of life and personal health appear to be equally motivating for many members. While the majority of the members did not specifically join the program to lose weight, a surprising 32% reported that they had dropped pounds as a result of the increase in daily exercise (even with an electrically powered bicycle) and 16% reported a higher quality of life and self worth after joining the program. If a small increase in exercise can lead to a healthier populace, both mentally and physically, then a healthier populace can lead to less drag on the public health system and increased workforce productivity. The Milken Institute, an economic think tank, recently released a study showing that common weight-related diseases such as diabetes, heart disease and high blood pressure have an annual economic impact in the U.S. of $1.3 trillion due to lost productivity and increases to the nation's medical bill in terms of heightened insurance premiums[8].

Additionally, twenty percent of the MyGo members reported a stronger connection with their community by joining the program and taking public transit. Indeed, there is strong evidence that

time spent commuting alone has a large negative effect on levels of happiness. One study found that a 23-minute commute had the same effect on happiness as a 19% reduction in income[9]. It appears that alternative commutes can bolster the mind and body, as well as the pocketbook.

Local Employers and City Governments

Among other benefits, a MyGo-type program can help cities comply with certain air quality regulations, and individual businesses can implement and support TDM strategies in their roles as employers, developers, building operators and service providers. Rule 2202 is a regulation enforced by the South Coast Air Quality Management District which requires employers to provide a menu of options to reduce mobile source emissions generated from employee commutes (to comply with the aforementioned California Health and Safety Code § 43845). The rule applies to employers in "non-attainment" areas (like Los Angeles) who employ 250 or more employees on a full or part-time basis. The rule attempts to reduce drive-alone commute trips to large work sites and mandates that employers achieve an average vehicle ridership (AVR) of 1.5 persons per vehicle. In other words, employers must attempt to increase the ratio to more than 1 person per 1 vehicle. In response to this requirement, the City of Burbank, for example, implemented the Burbank Commuter Program and began offering trip-reducing incentives (i.e. guaranteed ride home, rideshare matching, and preferential parking to employees who commuted to work by means other than driving alone.) A MyGo-type subsidy program may be an additional cost-effective option for a city or large employer to add to their menu of options to reduce peak-hour vehicle trips and comply with Rule 2202.

Many cities have also implemented Trip Reduction Ordinances (TRO) that apply to smaller employer sites than Rule 2202. In 1986, the City of Pasadena enacted a TRO that discourages SOV trips and aims to reduce peak demand upon streets, parking facilities, and transit systems (Pasadena Municipal Code §10.64.020). The recently-amended ordinance applies to all new developments exceeding 75,000 square feet of gross floor area (as opposed to the 250 or more employers affected by 2202). All developments that fall under the TRO must provide preferential parking for carpool vehicles, commuter matching services, bicycle facilities, and dissemination of information regarding trip-reduction strategies. MyGo-Pasadena is an example of a program that gives commuters resources and incentives to reduce their automobile trips and that could help a city/employer achieve the goals of the TRO.

Finally, according to a recent 2007 white paper by Joe Cortright of "CEO's for Cities," a reduction in vehicle miles traveled can contribute significantly to a city's economy[10]. Cortright concludes that the citizens of Portland, Oregon (by enacting a growth boundary, increased density, mixed land uses, and investments in public transportation, walking and biking) are saving time and money on transportation that gets funneled back into the local economy. In simple terms, reducing SOV travel means that Portlanders save on car ownership and gas costs, which means they have more money to spend on other things, which in turn stimulates Portland's economy. Logically, money spent on transportation immediately leaves the state, while money spent on other items usually stays within the region and stimulates local businesses instead. Cortright also points out that households that spend more on transportation spend less on housing, and vice versa.

Emissions Benefits and VMT Reduction Analysis

The environmental benefits of the MyGo program appear in the form of vehicle emissions reductions. Vehicle emissions are proportionate to total miles traveled, while hydrocarbon emissions are

accentuated by starting a cold engine ("cold starts'). In the latter case, avoiding a single short trip will reduce much more pollution than shaving that same distance off a longer one. While the overall emissions reductions for the inaugural MyGo program are not large, it does allow its members to avoid those 5-mile-and-under, heavily polluting trips from home to the transit station. And of course, the emissions reductions will multiply significantly if the program is replicated across a region.

Below are projected vehicle emissions reductions for the MyGo "full commuters," i.e., those who replaced an entire car commute with the MyGo e-bike/transit package. Assuming 60 members used the program 3 times per week, and assuming an average member car commute of 34 miles per day round trip (from Pasadena environs to downtown Los Angeles and back), each member offsets 102 vehicle miles traveled per week. This translates to the following emissions reductions *per year*, which are broken down in Table 8 below:

- **4,000 lbs of CO2** (a major contributor to global warming),
- **4.9 lbs of Reactive Organic Gases (ROG),**
- **5.3 lbs of NOx** (ROG and NOx help to form ground level ozone smog),
- **2.5 lbs of PM10** (particles that lodge deep in the lungs)

Model:			**Full Commuters**		
Emission Criteria:	0.612	g	NOx cold start		
Model for 2007	0.437	g/mi	NOx emissions		
	358	g/mi	CO2 emissions		
	1.372	g	ROG cold start		
	0.354	g/mi	ROG emissions		
	0.218	g/mi	PM10 emissions		
Commute:	17.0	mi	Average one-way commute		
	3		Roundtrips per week		
	50		Weeks per year commuting		
	300		Number of one-way trip reductions per commuter per year		
	5,100	mi/yr	VMT reduction per commuter per year		
Annual Emission Reduction:	2,412	g	NOx reduction per commuter		
	1,825,800	g	CO2 reduction per commuter		
	2,217	g	ROG reduction per commuter		
	1,112	g	PM10 reduction per commuter		
Annual Emission Reduction:	5.32	lbs/yr	NOx reduction per commuter		
	4,025	lbs/yr	CO2 reduction per commuter	2.01	tons/yr
	4.89	lbs/yr	ROG reduction per commuter		
	2.45	lbs/yr	PM10 reduction per commuter		

Key:

NOx = Oxides of Nitrogen
CO2 = Equivalent CO2 emissions, including CO2, N2O, and CH4
ROG = Reactive Organic Gases (hydrocarbons)
PM10 = Particulate Matter < 10 microns

Table 8: Emissions Benefits for "Full-Commuting" MyGo Members

Figure 12 below from the Sightline Institute illustrates that greenhouse gas emissions vary by vehicle type and occupancy rates, and the best strategy for reducing climate impact appears to be walking, biking, or ridesharing.

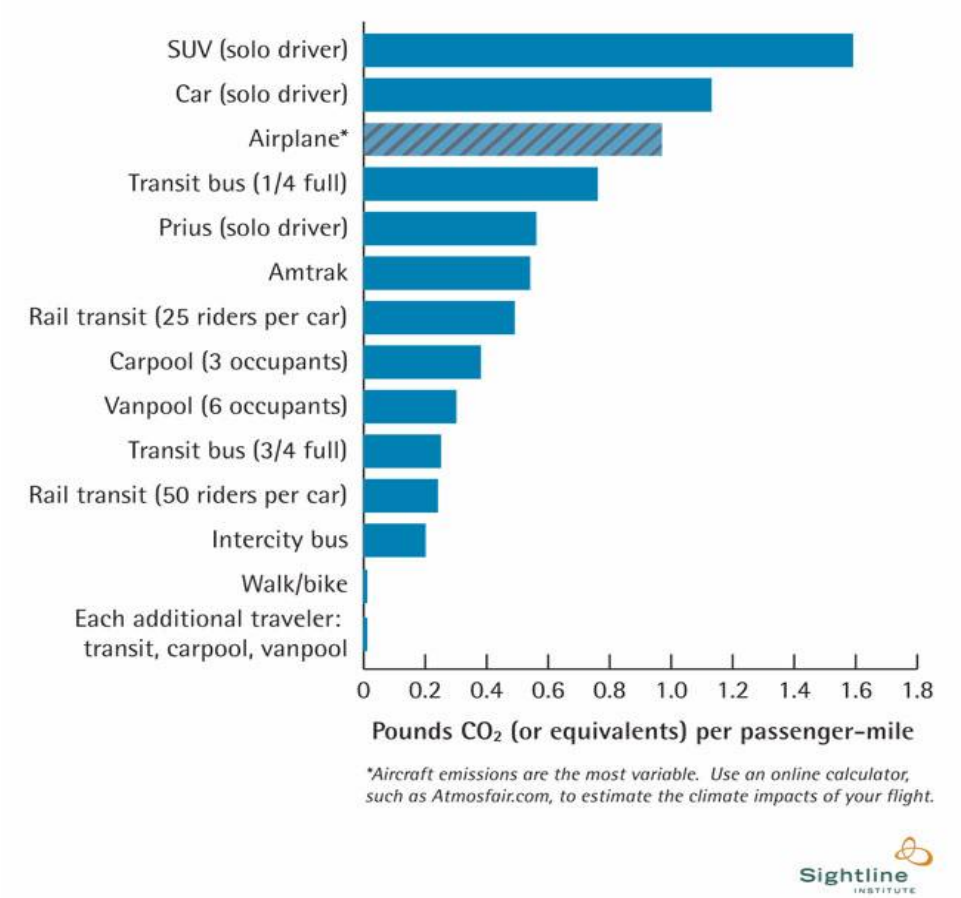

Figure 12: Climate Emissions by Travel Type

General Project Conclusions

The following are some general conclusions drawn from the MyGo-Pasadena pilot program as it concludes its operation.

- **MyGo-Pasadena encourages the use of cleaner alternative forms of transportation**. A significant proportion of MyGo members were not already riders of Pasadena's light rail system and were not familiar with 2-wheel BEV technology. This illustrates that the program reached a new market and shifted car-drivers into alternative modes of transportation. This is especially important since short trips from home to the transit station typically involve cold start emissions and are therefore heavily polluting. Other benefits (that will proliferate upon replication of the program region-wide) include reduced capital and operating costs for the construction and maintenance of park-and-ride structures, improved air quality, and decreased global warming emissions.

- **A "virtual mobility provider" website can streamline management processes and attract members**. A stylized, attractive website proved to be a critical tool in engaging new interest in the program and building a growing membership base without requiring significant additional staff time. This "virtual mobility provider" concept is highly scalable and can be replicated without extensive ongoing management costs.

- **Creating a "club-like" atmosphere builds cachet and community**. MyGo-Pasadena, in its barest form, is a mechanism for passing on incentives from a transit agency to a consumer to increase transit ridership while at the same time helping combat problems of traffic congestion and poor air quality. But fostering kinship among the members via discussion groups and newsletters encourages members to "stay on track" and helps spread the concept via word of mouth. Increased awareness of BEV technology in the collective consciousness of a community can potentially lead to more widespread use.

- **Reliable technology and responsive maintenance support are critical to success**. Vehicle performance and reliability are essential in maintaining member confidence in the program. In the instances where a vehicle's performance has failed, it has proved to be crucial that there is a responsive, 'brick-and-mortar' retailer available in the local area for service and repair.

- **MyGo-Pasadena can provide substantial economic benefits to key stakeholders.** The program can allow the transit agency to save on parking construction costs, the end user to save on car ownership/operating costs, and local governments and large employers to comply with certain municipal and state regulations.

- **MyGo-Pasadena can provide vehicle emissions reductions benefits that will increase significantly upon region-wide program replication.** Importantly, the program effectively replaces heavily polluting, "cold-start" emissions created during short trips from home to the transit station.

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Author

Whitney Pitkanen, Project Manager, WestStart-CALSTART, 48. S. Chester Avenue, Pasadena, CA 91106 USA. wpitkanen@calstart.org 626.744.5600 (phone), 626.744.5610 (fax)

Biography: For the last four years, Whitney has managed projects in CALSTART's First Mile Program and other projects focused on the promotion of clean transportation solutions. Whitney obtained a Bachelor of Arts degree from U.C. Berkeley and a Juris Doctorate degree from Tulane University, where she received a certificate of specialization in environmental law, and was the Notes and Comments Editor of the Environmental Law Journal. While at Tulane, Whitney published several articles on sustainable resource issues, including brownfield/infill redevelopment and land use management. Prior to joining CALSTART, Whitney worked as a legal analyst for the California Department of Justice in the Natural Resources Section, and for the City Attorney of Glendale with regard to water and power issues

APPENDIX
MARKETING MATERIALS

SATURDAY
JULY 14, 2007

LOCAL NEWS

pasadenas

RICHARD LUI / CORRESPONDENT

WHEELIN': MyGo Pasadena participant Leslie Stotlar boards her Giant Suede-E electric bike to leave the Weststart/Calstart office in Pasadena on Friday. Weststart/Calstart backs MyGo, a program that offers $500 toward an electric bike.

Pedaling for the planet

BY JAZMINE TOUTON
CORRESPONDENT

PASADENA — To Leslie Stotlar, who teaches environmental science at Marshall Fundamental High School, the offer of $500 toward buying an electric bicycle was an offer too good to pass up.

The 33-year-old mother of three pledges to ride her teal Giant Suede-E electric bike everywhere she goes this month as a participant in a local nonprofit's effort to subsidize bike ownership and get people out of their cars during daily commutes.

Subsidized by MyGo Pasadena, Stotlar bought her $1,000 bike for $500 three months ago, and now that she's racked up nearly 50 miles she says she's sold.

"With my e-bike I fear no hill," Stotlar joked, after pedaling her 2-year-old daughter on a trailer to look at prospective preschools.

MyGo's program is backed by Weststart/Calstart, a Pasadena-based nonprofit that promotes greener transportation.

MyGo offers $500 toward an electric bike and up to $30 per month to members who agree to ride their bikes to the Metro Gold Line at least two days a week.

Whitney Pitkanen, MyGo project manager, said the program has 26 members who already own a bike and ride it to the light-rail station, and 150 others are interested.

Once a biker signs an agreement on MyGo's Web page, mygo-pasadena.com, he or she can take it to a participating dealer and get a new electric bike.

Riders must pedal to start the bikes, but with some momentum they can twist the throttle and cruise up to 18 miles per hour. Pedaling can add extra speed.

Craig Renwick of Pasadena, who works at 20th Century Fox, starts riding his bike at 6:30 a.m. to the Del Mar station and ends up at Fox Studios in Century City about 90 minutes later.

Renwick said it takes him about the same time to drive to work in a car. Taking the train allows him to read the morning paper and exercise as he covers the remaining eight miles to work, he said.

"Riding the streets of L.A. on a bicycle is a dangerous proposition," Renwick said.

Still, he said he won't give up and even purchased an air-horn to warn less bicycle-conscious motorists.

Pitkanen said the only other similar electric bike program in the country is in Santa Cruz, and acknowledges biking to work can take commitment.

"It does take a leap of faith to get out of the car," she said.

She said the program, which started in March 2006, is offering a number of new incentives to get people to take that leap. One improvement is the addition of eight shared-key bike lockers at Metro stations, free to MyGo members.

In the coming weeks the program will add two new bikes to its vehicles; a $750 Curry Technology folding bike and a high-powered electric scooter from EnVironmental Motors in Glendale.

Renwick said he's been trying to get people in his company to get involved in the program, especially since News Corporation and 20th Century Fox announced they would try to be carbon neutral by 2010.

"I've pestered them," he said. "I think we could form a bicycle revolution."

THROTTLE JOCKEY

SUSAN CARPENTER

Lots of buzz over this electric bike

THERE was a flurry of reader questions on last week's review of the Electrobike Pi, a stylish $7,500 bicycle runs on pedal power, electric motor or a combo of both. the original review, a video additional reader feedback, latimes.com/latheckie

hat other e-bikes out there?

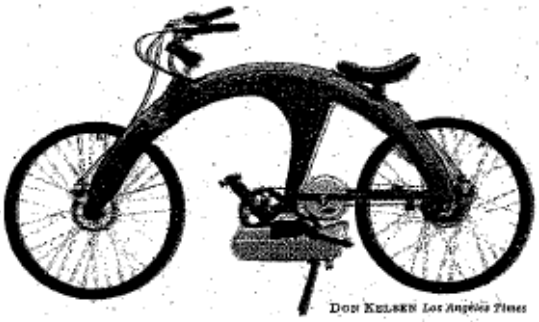
am completely appalled by e-bike you chose to cover. purpose of electric bicycles is to reduce our carbon footprint and make a personal step toward reducing emissions. Featuring a bike that costs $7,500 makes the goal something only the elite can afford to do.

There's a program in Pasadena called MyGo-Pasadena, which offers a $500 rebate for purchasing an e-bike and pledging to ride it to the train instead of using a car to get to work. This program features several great bikes that cost a lot less and are just as cool as the Pi.

JORDAN JACKLEGG
Alhambra

I chose to cover Pi because it intrigued me. I liked its high design, California origins, green manufacturing and sales strategy, but you're right: There are other electric bikes out there, some of which are endorsed by the MyGo program you, referenced. MyGo is available to Met-

[See Electrobike, Page G2]



DON KELSEN *Los Angeles Times*

Featuring a bike that costs $7,500 makes the goal [of reducing our carbon footprint] something only the elite can afford to do.

— JORDAN JACKLEGG
Alhambra

Cheaper bikes can be found

[Electrobike, from Page G1]

ro Gold Line passengers who commute at least twice a week by train and board at the Sierra Madre Villa, Memorial Park or Del Mar stations. Interested parties can find out more at *www.mygo pasadena.com* but need to act fast. The program ends Dec. 31.

Following are the four e-bikes available for rebates through the MyGo pilot program:

1) Giant Suede-E. Range: 20 miles per charge; time to recharge: four to five hours; top speed without pedaling: 11.5 mph; weight: 50 pounds; cost: $1,000.

2) Tres Terra Europa. Range: 18 miles per charge; time to recharge: six hours; top speed without pedaling: 19.8 mph; weight: 75 pounds; cost $1,500.

3) Currie IZIP Trailz Enlightened. Range: 23 to 30 miles per charge; time to recharge: four to six hours; top speed without pedaling: 18 to 20 mph; weight: 48 pounds; cost: $1,499.

4) Currie IZIP iZiGO folding e-bike. Range: 18 to 25 miles per charge; time to recharge: six to eight hours; top speed without pedaling: 18 mph; weight: 53 pounds; cost: $599.

ity when the bike is coasting in pedal-only mode. The generator is built into the flywheel so that the motor doubles as a generator when decelerating with the motor off. In a hilly environment like San Francisco, Electrobike says about 15% of the total value of the charge could be recouped from deceleration, while in flat areas, pedaling to assist the motor does a better job of contributing to the bike's range.

Can't Pi go farther on a charge?

Why be limited to 35 miles on one battery charge? Why didn't the manufacturer have a mode where, when coasting downhill, a small generator re-charges the battery so that you can travel even farther on the battery?

MARK HOPKINS
Costa Mesa

Pi's motor actually does have a generator that creates electric-

Electric bikes in the bike lane?

A problem getting worse up here in Santa Barbara, and I expect elsewhere, involves an increase in motorized vehicles in the bike lanes and paths. All motorized vehicles are prohibited, whether electric or gas. Perhaps you might consider this issue the next time you feature a vehicle likely to be used in breaking the above-referenced laws.

MIC DINUNZIO
Santa Barbara

I stand corrected. Although electric bicycles are allowed in bike lanes attached to roadways, they are not allowed on a bicycle path or trail, bikeway, equestrian or hiking trail unless the governing body having jurisdiction over such path or trail permits it, according to the vehicle code.

susan.carpenter@latimes.com

Los Angeles Times
G2 WEDNESDAY, OCTOBER 4, 2007

TIPS FOR BOTTOM-LINE SAVINGS

Invite your employees to cut smog, fight traffic and start a healthy new habit this month by joining MyGo-Pasadena.

Sponsored by the city, PWP and the Los Angeles MTA, this new program offers instant rebates on electric bikes, plus monthly cash rewards, to commuters who ride the Metro Gold Line. Open to current and future riders who would normally park their cars at the Sierra Madre Villa, Memorial Park or Del Mar stations, the program offers up to $500 for a two-wheel electric bike purchased from one of several participating Pasadena dealers. Commuters who pledge to ride their e-bikes at least two days per week to their Gold Line stop can earn monthly cash rewards of up to $30. What's more, studies show that commuters who drive 15 miles round trip each day can save as much as $150 in gas and maintenance by riding an electric bike instead.

"Promoting this program is a great way for business owners to help us create a greener Pasadena by using clean, electric transportation," said Public Benefits Manager John Hoffner. "And they'll benefit with happier, healthier, more productive employees."

Commuters can register online at www.mygo-pasadena.com, then receive an orientation package and users agreement in the mail. For more details, visit the web site or call (626) 744-5679.

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News Release **Contact: Whitney Beth Pitkanen**

For Release: April 19, 2007 **626-744-5609 / wpitkanen@calstart.org**

www.calstart.org

JUST IN TIME FOR EARTH DAY: TRANSIT / E-BIKE REBATE PROGRAM GETS ROLLING

CALSTART Launches "MyGo Pasadena"

Offering Big Discounts to Transit Commuters, Lessening Traffic Headaches

Pasadena , Calif. – *MyGo Pasadena* , a new sustainable mobility program administered by CALSTART, was launched recently to encourage Pasadena commuters to use electric bikes for short commutes to their neighborhood public transit stations. To qualify for the program, commuters must pledge to use their e-bike for at least two days per week to commute to one of the selected Metro Gold Line stations. Each person who qualifies for the MyGo program automatically receives an instant rebate of $500 when they purchase their electric bicycle. In addition to the rebate, each participant automatically qualifies for the Bronze Level reward and receives $10 per month. Those participants who can commit to more commuting days can earn even larger monthly rewards for exceptional usage.

"With Earth Day around the corner and Bike-to-Work week next month, the time is ripe to launch this program which strives to take single-occupancy cars off the road and encourage people to use public transportation," said Whitney Pitkanen, who directs the new MyGo program. "And those who make the leap get rewarded with cash!" she added.

CALSTART received funding for the program from the Los Angeles County Metropolitan Transportation Authority, the City of Pasadena , Pasadena Water and Power, and the Federal Transit Administration. Pasadena Department of Transportation's Mark Yamarone said, "The MyGo program is another

key component in Pasadena 's comprehensive plans to become a green and sustainable city. We are committed to getting residents around town without having to use their cars, and MyGo is a great way to do that."

The MyGo program was designed to be replicated along any transit line, anywhere in the country. "With a MyGo program in place, cities can get closer to their congestion mitigation goals, regions to their air quality goals, and transit agencies to their ridership goals," added Ms. Pitkanen. Commuters are already raving about the program, including the very first member to sign up, LA Superior Court Judge, Craig J. Mitchell, who said, "So far, the switch over to the Gold Line has been wonderful. I am using the electric bike and the Gold Line 5 days a week."

About WestStart-CALSTART

WestStart-CALSTART is North America 's leading advanced transportation technologies consortium. It is a participant-supported organization of approximately 140 firms and organizations worldwide, dedicated to expanding and supporting a high-tech transportation industry that cleans the air, creates jobs and improves energy efficiency. WestStart serves as a strategic broker to spur advanced transportation technologies, systems and the companies that make them. Its California operating division does business as CALSTART. Visit http://www.mygo-pasadena.com for more information.

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CITIES

MyGo Pasadena

WorldChanging Team
May 5, 2007 1:46 PM

by Worldchanging LA local blogger, Foster Kerrison:

Over the past couple of months in Pasadena, a cool new alternative transportation initiative called MyGo Pasadena has been getting off the ground. MyGo provides cash incentives for commuters to use electric bikes, rather than cars, to get to Gold Line stations. Some of you may have seen the first batch of program participants on the Metro Gold Line, showing off their trendy new electric bikes. The folks from Weststart-Calstart, a non-profit that is implementing the program, have been popping up at all the local bike events, and were a popular addition to last week's Pasadena Earth Day celebration.

Curious to learn more about where MyGo came from, and where it is going, I met up with Whitney Pitkanen, the program manager. Here is what I learned.

What is MyGo Pasadena?

MyGo Pasadena provides commuters who take the Metro Gold Line from one of 3 stations in Pasadena an instant $500 rebate towards an electric bike, as well as a monthly cash reward based on the amount they use the bike to connect to transit – all towards the goal of demonstrating the value of these electric vehicles as new transportation options to connect to Metro Gold Line transit stations in lieu of the single occupancy automobile.

MyGo Pasadena is the first program in the country to provide incentives for connecting bikes to transit.

What is Weststart-Calstart?

Calstart is a non-profit organization that basically connects manufacturers of new, environmentally friendly transportation technologies with a market. For a lot of innovative transportation technologies, demand must be created to allow them to enter the market. For example, in the case of MyGo Pasadena the program is creating a US market for e-bikes manufactured by Giant. The company is selling a million of these bikes in China every year, but has not been able to sell them in the US. By providing incentives for end-users to buy the bikes and use them in ways that are environmentally sensitive (connecting to transit), MyGo

Pasadena is creating demand, and a way for these bikes to enter the market.

Tell me about these bikes!

Electric bikes were actually first introduced to the United States in 1909, but like most forms of alternative transportation, they lost out to the automobile. The e-bikes that we provide a rebate towards are the Giant Suede-E and the Tres Terra Europa. They can be described as "human electric hybrids" because they provide "pedal activated power assist" meaning that add electric power as you pedal the bike, so you can go faster. [note: I learned how effective this "power assist" is when I saw Whitney cruise up a hill past a bunch of hardcore riders during a Pasadena bike ride last month!]

They bikes are legally considered bicycles, not mopeds. They take about 3-8 hours to recharge, depending on the model and the level of use.

Why Pasadena?

The City of Pasadena, along with Pasadena Water and Power initially sought funding for the program. Funding is also being provided by the Federal Transit Administration and Los Angeles Metro. Pasadena's Mayor, Bill Bogaard, is a major supporter of environmental initiatives – and is also an avid cyclist. The City has recently developed a Green Plan (PDF), and Calstart is hoping to partner with the city to deliver programs such as MyGo that support the transportation element of the plan.

How has the program been so far?

Feedback has been remarkably good. The first participant was a judge who commutes every day to downtown LA – and he loves it! There have been 85 enrollees since the program was launched in March, and there are currently 20 active members – meaning those who regularly take their bikes to the train.

The program participated in the "sustainable transportation village" portion of the Pasadena Earth Day Celebration, and we had a lot of interest from the community.

What are the major challenges?

Bike parking at Metro stations is limited, and MyGo is working with Metro to add bike lockers to the stations participating in the program. Participants can bring the bikes on board the trains, as long as they comply with Metro regulations, but then have to bring the bikes to their workplace when they arrive in Union Station.

What about more or better bike lanes in Pasadena?

While Pasadena received the "most bike friendly city" award for Los Angeles County in 2004, we have heard feedback that some of the streets are better than others. For instance, sometimes cars park over the bike lane. We are considering adding a blog to our MyGo website, so that we can share some of what our users are experiencing. This type of feedback may be useful for the City to consider as it continues to add bike lanes.

Any plans to expand the program?

We are currently looking to replicate the program in Burbank and Santa Barbara. We would also like to get the program expanded to cities in the South Bay (Redondo Beach, Manhattan Beach) to utilize their new bike trail.

We are also meeting with the employee transportation coordinators of companies in downtown LA, in conjunction with ridelinks, and plan to encourage them to promote our program among their employees.

What are some other initiatives you predict or would like to see?

There are a lot of transit-linked mobility initiatives going on through the First Mile group here at Calstart, and we hope to continue to partner with local cities to provide more ways to encourage transit use.

So, there you have it. The first program to encourage e-bikes on transit in the country, and we have it right here in LA county! If you commute from Pasadena, and see yourself as a WorldChanger, this is like free money! Go to MyGo Pasadena to sign up, and get on your bike!

Next Post
Previous Post

Green Transportation Alternatives in Los Angeles

www.greenoptions.com

Filed on May 31, 2007 at 4:40 AM PST
By Cassie Walker
Share: Digg | Hugg | Del.icio.us | Reddit
More by this writer

Photo credit: MyGo-Pasadena

Inspired by Mayor Antonio Villaraigosa's new GREEN LA climate change action plan, announced earlier this month, I've decided to take a look a big element of life in LA: transportation. As any Angeleno knows, ridiculous traffic and poor air quality have a huge impact on our overall quality of life here in So Cal (Mountains? I don't see any mountains!) But what's included in the plan, and what are our options in the meantime?

In the works

According to Nancy Sutley, Deputy Mayor for Energy and the Environment for the City of Los Angeles, "LA hasn't spent a dime in 15 years on expanding freeway capacity." Really? I hadn't noticed.

Fortunately, the city has worked to expand and green public transportation, used by over a million people every day. Working towards the elimination of diesel buses by next year, the MTA sports the largest fleet of natural gas buses in North America. Even better, expansions to the light rail and subway system are also planned, including the unlikely Subway to the Sea project that entails expanding the Metro Red line underneath Wilshire Blvd. 15 miles to the ocean. The project would take 15 years at a cost of $5 billion, but would provide public transport for one of the most heavily traveled routes in the city. If it happens.

So...what do we do in the meantime?

Well, let's start with the obvious: the greenest, and often the fastest, option for short trips is to walk or ride a bike. For longer trips, use public transportation for the majority of your travel. Trains don't get stuck in traffic, and buses can take the carpool lanes. Plus, despite the recent rate hike, it's still pretty cheap compared to a car.

For trips to and from the airport, give FlyAway a try. The bus service connects LAX to downtown's Union Station and Van Nuys. Either route costs just $3 each way, and you can complete airline check-in of your baggage and get your boarding pass before arriving at LAX.

This service is also set to be expanded as part of the Mayor's plan, so keep an eye out for new routes.

If you live in the Valley and already use the Gold Line for a downtown commute, check out MyGo-Pasadena. A project of transportation non-profit WestStart-CALSTART, MyGo-Pasadena provides significant rebates towards the purchase of a two-wheel electric vehicle for use in getting to the station. Since the bikes are powered, you won't be all sweaty when you get to work, but you can peddle home if you want the exercise. Besides, with this draught expected to stay awhile, you don't have to worry about getting rained on!

I know, I know, it's hard to give up driving entirely, and sometimes public transportation just doesn't cut it. For these times, consider a car sharing service like FlexCar. Offering hybrids and other fuel-efficient, low emissions vehicles, FlexCar allows you to reserve a car only when you need it. Insurance, title, and most importantly, gas, are included in your hourly or daily rate.

Whatever you choose, it will be better than sitting in traffic watching the bikes zoom by.

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Welcome to the Home of Pasadena DOT

Main Number: 626-744-TRIP

Attention Transit Riders!

Join MyGo-Pasadena and get a $500 instant rebate on a new electric bicycle, plus up to $30 a month cash!

If you board the Metro Gold Line from either the Sierra Madre Villa, Memorial Park or Del Mar stations in Pasadena at least 2 times a week, you could qualify for $500 towards your purchase of new electric bike to enhance your commuting options. Through our Rewards Program, you could also receive up to $30 extra per month depending on how many days per week you commute to your station using your new e-bike. What a great way to reduce the cost of your monthly Metro Pass!

What Else is New in DOT?

- Transportation Impact Fee FAQs (New)

Whitney,

On October 16th, I became a full functioning member of the My Go Pasadena program when I picked up my brand new Trek Terra Europa from Incycle. And since that day, I have only used my car to commute to work once!

I just wanted to personally thank you for all of the wonderful work you do through the My Go program. It has truly made a difference in my life and although I am only 1 person - I know I'm doing my part to help the environment.

And what an exciting way to not buy gas! I feel so much more connected w/ my community. I get to answer questions about the bike and promote the program - I make more connections with car commuters and pedestrians, I feel alive and healthy and FREE! Free of a lot of hassels that come with using a car for a trip that you could take one bike.

May your many kindnesses
come back to you a thousandfold.

Thank you so much

Please keep up the good work! You've inspired me to work with my company on increasing the number of workers that bike to work. Right now - only 4 bikes are parked in my work garage - I'm working to double that by next spring!

Bess M. Leggett

Bess Leggett
1919 S. Raymond Ave
Alhambra, CA 91803

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CA 917

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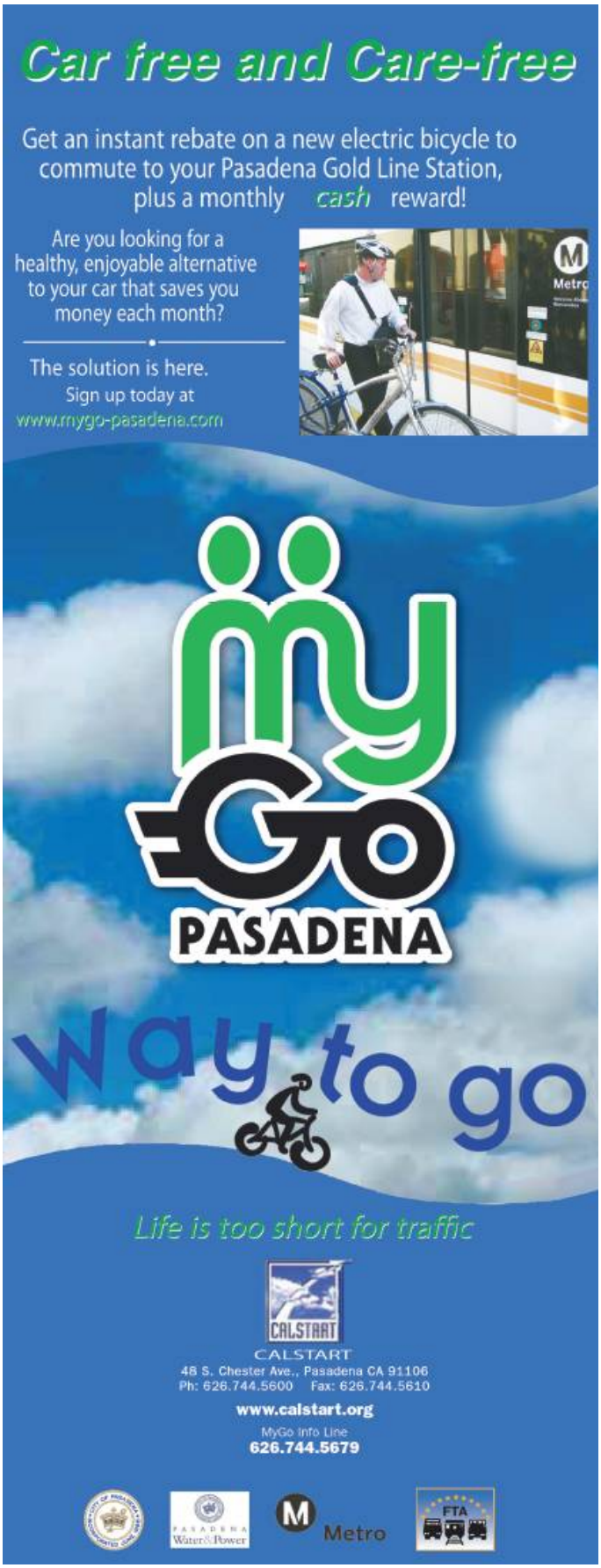
Whitney Pitkanen - Community Hero
48 S. Chester Ave.
Pasadena, CA 91103

Pasadena Star News
Earth Day Supplement
March 2007



Pasadena Weekly
Green Guide
Supplement
20007

MyGo Event Poster

Neighborhood Connections
City of Pasadena
1384 East Walnut Street
Pasadena, California 91106
626-744-7290
Established July 1987
April 20, 2007

Notes to Neighborhood Leaders

NEIGHBORHOOD CONNECTIONS

I am of the opinion that my life belongs to the whole community and as long as I live, it is my privilege to do for it whatever I can. I want to be thoroughly used up when I die, for the harder I work the more I live.

~George Bernard Shaw~

NEIGHBORHOOD NEWS

CARTOON DRAWING WORKSHOP

Please visit the Allendale Library on Thursday, April 26, 2007 at 3:30 p.m. for a fun afternoon with cartoonist/ illustrator Dave Boatman. His work has been published in newspapers and magazines across the country, and he will demonstrate step by step how to draw cartoons. Those interested in learning or brushing up on their cartoon drawing skills are encouraged to attend. Students should bring their own drawing tablet or paper, pencils, erasers, Sharpie marker and imaginations!

The Allendale Library is located at 1130 S. Marengo Ave. For more information, please call 626-744-7260.

Allendale Library

HOW TO HELP YOUR KIDS SUCCEED IN SCHOOL

Burbank Elementary School is partnering with the Pasadena LEARNs after school program to present the Parents Expectations Support Achievement (PESA) parenting program. Lena Badjaksezian, Community Assistant for Burbank says that the PESA Program provides parents with the opportunity to "know their children better and to be more involved in their student's education." One parent stated, "I know this program will help me communicate in a better way with my children."

During the PESA sessions, parents will have the opportunity to meet and share with other parents. Participants meet in groups of about 10-12 for approximately seven sessions and may be anyone who has the responsibility for caring for children. Parents will learn interactions to help support their child's academic achievement, develop meaningful communication, and create a safe and caring environment. Parents are expected to practice the skills at home with their children each week and record significant experiences in their PESA handbook.

The PESA course in English will begin on April 24 at 5:30 p.m. and run through June 5th with a graduation/potluck in the Burbank Elementary School Library. PESA is open to any parent or caregiver and is free due to a generous grant from the Washington Mutual Foundation. Childcare is available. Contact Lena Bedjaseczkian at 626-798-6769 to register.

PESA/PUSD

HOP ON AN E-BIKE AND EARN CASH REWARDS

Looking for a fun and healthy alternative to your car that will save you money every month?

Join MyGo-Pasadena and get an instant rebate of up to $500.00 on a new electric bike to ride to Metro Gold Line stations in Pasadena, plus a monthly cash of up to $30.00!

Sponsored by Pasadena Water and Power, Pasadena Transportation Department and Metropolitan Transportation Authority, MyGo-Pasadena offers big rebates to each commuter who buys a two-wheel electric bike from one of the several participating Pasadena dealers. The program is open to current and future Metro Gold Line commuters who would normally park their cars at Sierra Madre Villa, Memorial Park or Del Mar station. To qualify, simply pledge to use your e-bike for at least two days per week to commute to a Metro Gold Line station in Pasadena. The more days you ride, the more rewards you earn!

You'll save money at the same time. Studies have show that a car commuter who drives 15 miles round trip each day will save as much as $150.00 in gas and maintenance by switching to an

electric bicycle. What's more, the reduction in city congestion and harmful exhaust fumes will benefit us all.

Register online at www.mygo-pasadena.com. If you qualify, you'll receive an orientation package and user agreement in the mail. Take your signed agreement to one of our participating electric bike dealers and get started on a new, healthier way of life.

PWP/Transportation

NEIGHBORHOOD RESOURCES

ACCESSIBILITY FOR THE DISABLED

The Americans with Disabilities Act covers all City services and employment practices, and the City will not discriminate against qualified individuals with disabilities on the basis of their disability. To ensure access, the City provides reasonable modifications to programs, reasonable accommodation in employment, and auxiliary aids, including but not limited to materials in Braille, large print, and computer file. Individuals with complaints regarding the accessibility of City programs, services, facilities, and employment practices to people with disabilities may contact the Accessibility Issues Coordinator at 626-744-4782. The Coordinator is also available to provide information about federal and state laws on accessibility.

Accessibility Issues Coordinator

MOBILE SHREDDING SERVICE

As a safeguard against identity theft, AbilityFirst now offers a new Business Service: the AbilityFirst Mobile Shredding truck that can arrive at your business or home, take documents and plastics, and immediately shred them safely on-site. Secure document shredding is also available at AbilityFirst's Pasadena Work Center.

Equipped with security cameras, the certified, bonded and licensed state-of-the-art mobile truck provides protection to individuals concerned with high-risk documents including old tax records, business documents, household records, as well as computer diskettes, CDs and DVDs that contain confidential information. They are destroyed safely and according to the law.

The AbilityFirst Mobile Shredding truck will arrive at your home and a friendly customer service representative will then place your file boxes (12"W x 16" L x 9" H) in bins for loading into the shredder. Or you can bring your boxes to the AbilityFirst Pasadena Work Center, located at 2570 Foothill Boulevard, Monday through Friday, 7:30 a.m. to 3 p.m.

AbilityFirst Mobile Shredding prices: 1 to 5 file-size boxes, $15 each; 6 to 10 file-size boxes, $10 each. There is a $15 minimum and checks should be made out to "AbilityFirst."

For additional information on AbilityFirst Mobile Shredding, and to schedule an appointment, call (toll free) 1.866.766.2006 or visit www.abilityfirst.org.

All AbilityFirst Business Services offerings, including Mobile Shredding, insure the organization's continued success in creating jobs for individuals with disabilities and providing programs and services to help children and adults with disabilities realize their full potential throughout their lives.

AbilityFirst

Calendar of Upcoming Events

May 5th- Rebuilding Together Work Day, Citywide
May 5th-6th- Cinco de Mayo Festival @ Rose Bowl Area H, 12:00 p.m. - 8:00 p.m.
May 12th- Day of 1,000 Volunteers, 8:00 a.m. – 2:00 p.m.
May 12th- Fire Service Day @ Station #33, 10:00 a.m. – 4:00 p.m.
May 23rd-26th– NUSA Conference, Baton Rouge, LA
May 26th– Family Fun Day @ La Pintoresca Park, 10:00 a.m. – 2:00 p.m.
May 28th– Memorial Day Holiday

Upcoming Council Meetings

May 7th:
Council Chambers, City Hall
Closed Session – 5:30 p.m.
Public Meeting – 6:30 p.m.
City Council Reorganization Meeting
May 14th:
Council Chambers, City Hall
Closed Session – 5:30 p.m.
Public Meeting – 6:30 p.m.
Joint Meeting with PUSD
May 21st:
Council Chambers, City Hall
Closed Session – 5:30 p.m.
Public Meeting – 6:30 p.m.
Fiscal Year '08 Operating Budget
May 28th:
To be Cancelled

Complete agendas of all City meetings as well as other important documents are available at the Pasadena Central and Branch Libraries. In addition, City Council Agendas can be found on the City's World Wide Web Page http://www.ci.pasadena.ca.us and on the Community Bulletin Board broadcast on KPAS Channel 55.

Neighborhood Connections
1384 E. Walnut St.
Pasadena, CA 91106
626-744-7290

Estimados Vecinos
Si alguien necesita que esta información esté presentada en español, por favor llame a la oficina de Neighborhood Connections al 626-744-7290 para pedir una interpretación.