

PUBLIC NOTICE

In accordance with the Statutes of the State of Illinois and the Ordinances of the City of Highland Park, the next meeting of the Natural Resources Commission of the City of Highland Park is scheduled to be held at the hour of 6:30 p.m. on Wednesday, February 13, 2013 at the City of Highland Park City Hall, 1707 St. Johns Avenue, Highland Park, Illinois, during which it is anticipated there will be a discussion of the following:

CITY OF HIGHLAND PARK  
NATURAL RESOURCES COMMISSION  
WEDNESDAY, FEBRUARY 13, 2013  
HIGHLAND PARK CITY HALL  
1707 ST. JOHNS AVENUE  
HIGHLAND PARK, ILLINOIS  
6:30 P.M.

**MEETING AGENDA**

**I. Call to Order**

**II. Roll Call**

**III. Approval of Minutes:** January 9, 2013

**IV. Business from the Public**

**V. New Business**

- A. Presentation on Energy Impact Illinois Goals by Paige Bonk
- B. Presentation on the City's Steep Slope Zone and Lake Michigan Protection Zone Regulations
- C. Status Report on Sustainability Plan Implementation and Discussion of the Draft Electric Vehicle Expansion Plan

**VI. Old Business**

- A. Continued Discussion of 2013 Commission Work Plan Action Items
- B. Status Report on Library Movie Screening of *With My Own Two Wheels* on March 3, 2013

**VII. Other Business**

- A. Commissioner Comments
- B. Administrative Items

**VIII. Adjournment**

**MINUTES OF A REGULAR MEETING OF  
THE NATURAL RESOURCES COMMISSION OF THE CITY OF HIGHLAND  
PARK, ILLINOIS**

**MEETING DATE:** January 9, 2013

**MEETING LOCATION:** Pre-Session Room, Highland Park City Hall, 1707 St. Johns Avenue, Highland Park, Illinois

**CALL TO ORDER**

At 6:30 p.m., Chairman Sultan called the meeting to order and the Staff Liaison called the roll.

**ROLL CALL**

**Members Present:** Bogot, Coyle, Hannick, Matthews, Rheinstrom, Ross, Sultan, Meyer and Beck

**Members Absent:** Naftzger

The Staff Liaison declared that there was a quorum of the Commission present.

**Staff Present:** Staff Liaison Barbara Cates

**Also Present:** Lake County Board Member Steve Mandel and Citizen Advisor Mark Nolan Hill

**MINUTES**

**A. Regular Meeting of the Natural Resources Commission—December 12, 2012**

Commissioner Bogot moved for approval of the minutes of the regular meeting of the Natural Resources Commission held on Wednesday, December 12, 2012 as presented. Commissioner Matthews seconded the motion.

On a voice vote, Chairman Sultan declared that the motion unanimously passed 7-0.

**BUSINESS FROM THE PUBLIC**

There was no business from the public presented for consideration.

**NEW BUSINESS**

**A. Educational Overview of Commission Roles and Responsibilities**

Chairman Sultan welcomed new Commissioners Coyle, Hannick, Rheinstrom and Ross. Sultan presented a detailed presentation on this Item, discussing the Commission's

background, purview and 2013 work plan goals. Commissioner Bogot, Citizen Advisor Hill and Lake County Board Member Mandel noted some of the Commission's previous accomplishments and discussed the Commission's participation at special events including the July 4<sup>th</sup> parade, beach and ravine cleanup days, and the recent Recycling Extravaganza.

Sultan delivered a PowerPoint presentation illustrating conditions of local ravines and bluffs. Sultan noted that Staff Liaison Cates would provide a detailed presentation on the City's Steep Slope regulations at a future Commission meeting. Cates noted that hard copies of the Code regulations have been provided to new Commissioners, and Commissioners are encouraged to contact her with questions.

#### B. Discussion of 2013 Commission Work Plan Action Items

Commissioner Sultan asked new Commissioners to review the 2013 work plan in preparation for a discussion of the items at the February meeting. Commissioners discussed additional issues that could be discussed in 2013 including: pet waste management, community event composting opportunities, alternative energy sources promotion and paint/battery/medicine recycling programs.

#### C. Discussion of Ways to Promote Recycling in the New Recycling Receptacles Located in the Central Business District

Staff Liaison Cates reported that recycling receptacles were recently installed throughout the Central Business District and at the City's three train stations. Cates noted that the recycling receptacles are intended to be clustered with the existing garbage cans, and Public Works staff will be monitoring the locations throughout the next few months to determine the most optimal placement.

Cates suggested issuing a press release and sharing the news with residents, the Chamber of Commerce, Downtown Alliance and the Business and Economic Development Commission; Cates noted that flyers can also be placed in the train stations and in the Rosewood and Millard Park kiosks. The Commission agreed with the recommended approach.

#### **OLD BUSINESS**

Chairman Sultan stated that there were no old business items for consideration.

#### **OTHER BUSINESS**

Staff Liaison Cates noted that the discussion regarding the 2013 work plan action items will resume at the February meeting, and it is anticipated that several speakers will be visiting the Commission over the next few months to discuss various topics. Cates asked Commissioners to review the City's contact list and indicate if any revisions are necessary.

#### **ADJOURNMENT**

Chairman Bogot adjourned the meeting at 8:30 p.m.

Respectfully Submitted,

Barbara E. Cates, Secretary

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MINUTES APPROVED BY THE NATURAL RESOURCES COMMISSION ON \_\_\_\_\_

- WITH NO CORRECTIONS \_\_\_\_\_
- WITH CORRECTIONS \_\_\_\_\_  
(SEE MINUTES OF [ \_\_\_\_\_ ] MEETING FOR CORRECTIONS)

DRAFT



# Memorandum

To: Members of the Natural Resources Commission

From: Barbara E. Cates, Planner II

Date: February 6, 2013

Re: Agenda Items for the February 13<sup>th</sup> Meeting of the Natural Resources Commission

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## **NEW BUSINESS:**

### A. Presentation on Energy Impact Illinois Goals by Paige Bonk

Paige Bonk, a member of the outreach team with Energy Impact Illinois, will be visiting the Commission to discuss the purpose and goals of Energy Impact Illinois as they relate to home energy efficiency improvements. Energy Impact Illinois is an alliance of local and federal governments, utilities, and non-profit organizations that has received a grant from the Department of Energy through the Chicago Metropolitan Agency for Planning (CMAP) to help fund energy efficiency improvements in the Chicagoland area.

For additional information prior to the meeting, please see the attached information sheet, or visit: <http://energyimpactillinois.org/>

### B. Presentation on the City's Steep Slope Zone and Lake Michigan Protection Zone Regulations

I will present a brief overview of the City's Steep Slope Zone and Lake Michigan Protection Zone regulations to expound upon the information that you received at last month's meeting. The pertinent sections of Code were included within the hardcopy materials that new members received during the Commission orientation meeting; however, if you'd prefer to review the regulations electronically, they can be accessed online using the following links:

#### **Lake Michigan Protection Zone Regulations, Found in Chapter 150, Article 7, Section 150.703.1, Pages 2-10**

<http://www.cityhpi.com/documents/21/31/50/ART07%20AREA%20BULK%20%20DENSITY.PDF>

**Steep Slope Zone Regulations, Found in Chapter 150, Article 19, Pages 1-14**

<http://www.cityhphil.com/documents/21/31/50/ART19%20STEEP%20SLOPE%20ZONE.PDF>

C. Status Report on Sustainability Plan Implementation and Discussion of the Draft Electric Vehicle Expansion Plan

The City's Sustainability Coordinator, Bryan Tillman, will be attending the meeting to provide the Commission with a status report on the implementation of the Sustainability Plan and to discuss the attached draft Electric Vehicle Expansion Plan. The Electric Vehicle Expansion Plan is intended to be a working document at this stage, and the Commission will be welcome to provide feedback on the document at this point in the process.

**OLD BUSINESS:**

A. Continued Discussion of 2013 Commission Work Plan Action Items

The Commission will continue its discussion of the attached work plan. Please note that these items directly reflect the work plan and budget request approved by the City Council.

B. Status Report on Library Movie Screening of *With My Own Two Wheels* on March 3, 2013

As a reminder, *With My Own Two Wheels* is scheduled to screen at the Highland Park Library on Sunday, March 3<sup>rd</sup> at 2:00 p.m. The Commission is serving as a sponsor of the event, and members are encouraged to attend. Library staff is in the process of assembling promotional information for the film, and as soon as it is prepared, I'll post the information as appropriate. In the meantime, for additional information on the film, please visit the following webpage: <http://www.withmyowntwowheels.org/synopsis/>

The Commission has budgetary funds to schedule several additional environmental movie screenings through this year, and these have not yet been planned. During the discussion of the 2013 Work Plan, I will ask those of you who are interested in selecting and helping to publicize the films to let me know so that we can begin to make plans for the rest of this year.

**ATTACHMENTS:**

- Energy Impact Illinois Information Sheet
- Draft Electric Vehicle Expansion Plan
- 2013 Work Plan Action Items

# Energy Impact Illinois

The Chicagoland area is one of only 25 communities in the nation to receive federal stimulus money to make homes more energy efficient as part of the American Recovery and Reinvestment Act grant through the U.S. Department of Energy's Better Buildings Neighborhood Program. Ours is in the generous amount of \$25 million dollars, because most of the homes in the Chicagoland area are old and uninsulated. The money must be dispersed to homeowners throughout the 7-county Chicagoland area by mid-May, because that is when our grant funding expires. In an effort to achieve this goal, local and federal governments, utilities, and not-for profit groups have formed an alliance called Energy Impact Illinois.

## Goals:

- Insulate and air seal 6,000 homes and provide 2,000 jobs
- Make homes more comfortable, more affordable, and more sustainable

## Who is Eligible:

- Homeowners of any income level
- Single family and 2-4 unit buildings

Studies have shown that the most cost-effective way to make a home more comfortable and energy efficient is to air seal and insulate, most importantly in the attic and basement, so Energy Impact Illinois is offering several incentives to insulate and air seal homes and is making it as easy and accessible as possible by providing the following:

- Low-cost energy assessments
- Free energy assessments for Home Impact Party hosts. The 1-1/2 hour party will feature a brief explanation of the program by a friendly Energy Impact Illinois program representative and an energy assessment demonstration by an approved contractor, who will also be on-hand to answer any questions from you and your guests. For providing the opportunity to share this valuable information with your friends, you will not only be provided with simple instructions and sample invitations, but will be given a free thorough energy assessment of your home valued at \$400-\$800.
- A rebate of 70% (up to \$1,750) off the cost of repairs. Average repairs cost \$2,400. Average cost to homeowner is \$720 with average savings of \$500 per year on energy costs.
- Energy Impact Illinois is also providing access to low-interest loans (0% first-year interest on loans greater than \$2500) through partnerships with several local banks and credit unions, which can be used for boilers, furnaces, windows or other energy efficiency improvements.
- Approved contractors, who have received a special level of certification from the Building Performance Institute and comprehensive background check.
- For homes that reduce their energy consumption by 15% (which most do), an Illinois Home Performance certificate that will be included in MLS listing. (An article in the Washington Post stated recently that homes in California with the energy efficiency rating sold at rates 9% higher and in Portland, Oregon, sold 3-4 times faster than similar homes without the rating.)

## Benefits of the program:

- Lower energy bills (average \$500/year), making houses more affordable
- Lower energy consumption and improve air quality
- Reduce the carbon footprint all of us are tremendously affected by
- Lessen the need to create more power plants and extract natural resources

2013

# City of Highland Park – Electric Vehicle Expansion Plan



Bryan Tillman

Kymanox

1/23/2013

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# Executive Summary

## Introduction

The City of Highland Park made a decision to provide resources to increase the number of Plug-in electric vehicles (PEV) in their community. This decision aligns with and supports the Highland Park Community Sustainability Strategic Plan and also enhances the Bike-Walk Highland Park 2030 Plan. The four core factors that will impact the PEV market are:

- Vehicle availability
- Fuel prices
- Government market influences
- Consumer attitudes and recharging infrastructure

## Highland Park's Objective from January 1, 2013 to January 1, 2014

- Double the number of PEV charge stations from 2 to 4.
- Double the registered PEVs from 9 to 18 in Highland Park within one year.
  - Capture up to \$103,500 in federal and state incentives.
  - Reduce annual gasoline consumption equal to \$23,229.
- Author two articles to be posted in Highland Park news publications to continue educating the community about the benefits of this mode of transportation.

## Goals

- Support the adoption of PEVs in the City of Highland Park to advance the Highland Park Community Sustainability Strategic Plan.
- Support our national goal of energy independence, reduce pollution, and create local career opportunities. Reduce the harmful effects that pollution has on human health and our environment.
- Initiate the project on January 1, 2013 and continue for a minimum of three years with annual reviews and appropriate adjustments made to optimize the PEV adoption rate.

## Kymanox Recommendations and Next Steps

Our research has shown that additional PEV charge stations coupled with enhanced communication (e.g., emphasizing the favorable economics behind PEV ownership) and education will encourage the use of plug-in electric vehicles by Highland Park residents and those visiting the community. The City will have two phases during this implementation process. This first phase will focus on getting a demonstration project implemented and properly marketing this project to the innovators and early adopters.

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The second phase will focus on expanding PEV adoption to capture mainstream consumers.

### Identified Risks

Even with strong support from the City of Highland Park there are risks that should be considered that may affect the PEV adoption rates. These risks include:

- Fluctuating gasoline prices.
- Consumer acceptance.
- Strength of the global and local economy.
- Other “fuel” alternatives such as natural gas.
- The ability for the grid to handle a massive PEV adoption rate (i.e., grid intensity).
- Changes to industry standards for infrastructure, cars, and charge stations.

### Project Phase 1: 0 to 6 Months

Install a demonstration PEV charge station to provide a location for PEVs to charge and to showcase the benefits to all of the stakeholders. This phase is intended to educate the public while supporting potential purchasing decisions. Phase 1 will involve:

- Partner with local municipalities to conduct joint bidding leveraging scale and establishing regional continuity. Previous experience while bidding for electricity and other services has proven effective and financially beneficial.
  - Although this will slow the implementation process it will benefit the project by lowering costs and creating a cluster of easily accessible charge stations which will help encourage those considering a PEV to choose this over a vehicle with an internal combustion engine (ICE).
- Install one Level 2 charging station capable of charging two vehicles (i.e., two charge cords), and capture the current Illinois rebate.
  - This recommendation mirrors current best practices in cities nationwide.
  - Once the charge station is installed, outsource servicing responsibilities so that the City is acting as only a host to the charge station.
  - The cost estimate for one, dual vehicle level two charge station (or two level two single vehicle charge stations) and the installation is approximately \$10,000.
- Promote station with proper signage and leverage news media coverage.

**Table 1: Project Phase 1 Budget**

Item	Before rebate	After rebate
Dual, Level 2 charge station	\$7,000	\$3,500
Installation costs (typical range \$2,500 to \$7,500)	\$5,000	\$2,500
Signs	\$2,500	\$2,500
<b>Total</b>	<b>\$14,500</b>	<b>\$8,500</b>

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## Project Phase 2: 6 Months to 3 Years

The second phase of the project will be geared towards encouraging mainstream consumers to move towards PEV adoption. Some of this will be completed through public-private partnerships while others will be completed by increasing “touch points” with our target audience. Phase 2 will include:

- Incorporate tiered vehicle registration pricing.
  - With over 17,000 registrants each year, this gives the strongest return on investment and will have a negligible financial impact.
- Encourage employee PEV adoption.
  - Provide access to charge stations and preferential parking.
  - Offer educational opportunities to discuss the benefits of PEVs.
- Provide preferential treatment to companies with PEV fleets during bidding process.
- Continue to promote the importance of owning a PEV and communicate this to the public.
  - Focus on the human health, environmental, financial, and social (i.e., community) benefits.
- Encourage builders to incorporate charge stations in new structures and to consider preferential, prime parking spaces for electric vehicles.
- Incorporate PEVs into City fleet vehicles.
- Explore vehicle to grid (V2G) feasibility.
- Engage auto dealers.

The evolution of the PEV market is expected to start slowly but as infrastructure is enhanced and the PEV becomes more attractive to the mainstream consumer the adoption rates are expected to continue an upward trajectory. Infrastructure must be in place first, this is critical to encourage and enable adoption of the PEV. With the implementation of this plan, we expect the number of PEVs and PEV charge stations to double within one year. Each year thereafter, the growth will climb at a faster pace and should be re-evaluated to determine the best way to continue this progress. This growth will reduce the pollution rates in Highland Park and in turn have a positive impact on human health as well as the overall environment.

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# Acronyms and Definitions

Abbreviation	Description	Definition
<b>Vehicle Types</b>		
BEV	Battery Electric Vehicle	BEVs provide power to the vehicle by using 100% electricity which is stored in batteries and will typically deliver a range of 60 to 300 miles of driving. These vehicles are recharged by plugging them into a wall outlet or using a higher wattage charge station. One example of this would be a – Nissan Leaf.
ICE	Internal Combustion Engine	ICEs provide power to the vehicle by burning a liquid fuel such as gasoline. These are currently the most prevalent vehicles on the road.
PEV or EV	Plug-in Electric Vehicles or Electric Vehicles	PEV is the term most commonly associated with the BEV, REEV, and PHEV. Hybrid electric vehicles are occasionally linked with these vehicles but our focus will be strictly tied in with the electric vehicles that have the ability to “plug-in” and store and use that electricity for fuel.
PHEV	Plug-in Hybrid Electric Vehicles	PHEVs provide a cross over between the ICE and BEV. These vehicles will run for 10 to 40 miles without consuming gasoline (although there are some speed and acceleration limitations). Beyond the initial distance these vehicles will shift into a mode that uses gasoline or a gasoline and electric blend. This provides strong fuel economy while eliminating “range anxiety.” Ford produces the C-Max Energi which has been classified as a PHEV.
REEV	Range Extended Electric Vehicle	REEVs provide power to the vehicle by using electric motors. Once the battery has been fully discharged, the car uses a generator to recharge the batteries. The car is always powered by an electric motor. The Chevy Volt is classified as an REEV.
<b>Charging Station Types</b>		
DC Fast Chargers	Direct Current Fast Chargers	Provide 60 to 80 miles of range in 20 minutes of charging. DC fast charge stations are used in commercial applications and are expected to become more popular along our highway system.
N/A	Level 1 Charge Stations	Provide 2 to 5 miles of range per hour of charging. Level 1 charge stations are typically used for residential applications.
N/A	Level 2 Charge Stations	Provide 10 to 20 miles of range per hour of charging. Level 2 charge stations are most frequently used in public applications as well as occasionally for residential applications.
<b>Others</b>		
AC	Alternating Current	A type of current where the electric charge periodically changes direction.
CNT Energy	Center for Neighborhood Technology	A division of the Center for Neighborhood Technology (CNT) that promotes urban sustainability.
CO <sub>2</sub>	Carbon Dioxide	A gas that heavily contributes to the Greenhouse Effect.
DC	Direct Current	A type of current where the electric charge flows in only one direction.
DCEO	Department of Commerce and Economic Opportunity	N/A
NAAQS	National Ambient Air Quality Standards	N/A
PRTM	Pittiglio, Robin, Todd and McGrath	A management consulting subsidiary of PricewaterhouseCoopers.

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# Defining the Plug-in Electric Vehicle (PEV)

Improvements to ICE vehicles will continue to reduce emissions of carbon dioxide and air pollutants, but it is generally agreed that the adoption of new vehicle technologies are needed to achieve our emission reduction targets. There is a growing consensus that PEVs are the best near-term, cost-effective solution to reduce vehicle emissions. With the enhanced awareness of the environmental impacts tied to petroleum-based transportation and the probability of “peak oil,” there has been a renewed interest in PEVs.

Despite the fact that some of the electricity produced is currently dependent on fossil fuels, the electric vehicle provides the ability to diversify the energy portfolio and reduce our dependence on foreign oil while providing demand response management abilities to reduce energy consumption during peak demand times, often referred to as vehicle to grid. Additionally, a range of studies has found that PEVs lead to 35 to 60% less carbon dioxide (CO<sub>2</sub>) pollution from electricity than the CO<sub>2</sub> pollution from the oil of an ICE vehicle.

Today we are beginning to see a number of different variations of electric vehicles, each with different attributes and benefits. There is the battery electric vehicle (BEV) that runs on 100% electricity and will typically get from 60 to 300 miles of range per charge. Once the battery is consumed it needs to be recharged to go further. There is a range extended electric vehicle (REEV) which runs on electric motors but has a generator on board to recharge the battery. The plug-in hybrid electric vehicle (PHEV) will run primarily on electricity for the first 10 to 40 miles and then switch to hybrid mode running on fossil fuels and electricity. These two vehicle categories are included in the more general term, plug-in electric vehicles (PEV), which are also commonly referred to as electric vehicles (EV). These are the vehicles that will benefit from the PEV charge station infrastructure. The last vehicle type that uses electricity to enhance mileage includes hybrids. Despite not being able to plug-in and run strictly off electricity, these cars do use large batteries and the electricity stored in these batteries reduces fuel consumption. This report will only focus on the BEV and the PHEV, and any references to a PEV will be directed at the BEV and PHEV.

**Figure 1: Image Showing the Variety of Electric Vehicles**



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# Why Promote Plug-in EVs

According to a 2012 report conducted by BP, both BEVs and PHEVs are expected to grow to an 8% market share by 2030<sup>1</sup>. Highland Park should act today to ensure proper preparation and accommodation for this mode of transportation. The greatest gains are expected to come with PHEV in North America. Once the PHEV runs out of battery life the vehicle will switch to hybrid mode which is reliant on fossil fuels to provide power. According to a report put together by CNT Energy for the City of Highland Park which cited a Pike Research Electric Vehicle Market Forecast, there are four distinct factors that will impact the PEV market:

- Vehicle availability
- Fuel prices
- Government market influences
- Consumer attitudes and recharging infrastructure

Initially it is felt that a majority of private PEV owners will charge their PEV at home and overnight since this is the most convenient and least expensive option. Despite this fact, it is important to provide publicly accessible charging infrastructure as this will generate consumer interest and bolster confidence for individuals considering the purchase of a PEV. It is important for the City of Highland Park to help influence consumer attitudes and help ensure that the proper PEV infrastructure goes into place. PEV charge stations and appropriate outreach will “kick start” consumer buying habits leading to Highland Park becoming a community that makes it easy for consumers to own and operate an electric vehicle. This project will align with and help advance the Highland Park Community Sustainability Strategic Plan.

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<sup>1</sup> BP Energy Outlook 2012 – 2030, Last Visited 10/23/2012.  
[http://www.bp.com/liveassets/bp\\_internet/globalbp/STAGING/global\\_assets/downloads/O/2012\\_2030\\_energy\\_outlook\\_booklet.pdf](http://www.bp.com/liveassets/bp_internet/globalbp/STAGING/global_assets/downloads/O/2012_2030_energy_outlook_booklet.pdf)

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# Benefits to Multiple Stakeholders

## Consumer

Ownership of a PEV gives the consumer a cost savings and a hedge against volatile gas prices. Having a charge point in town will eliminate or reduce “range anxiety” for BEV owners who do not have fossil fuel range extenders. Consumers who purchase an electric vehicle can receive up to \$11,500 in government incentives (\$7,500 federal and \$4,000 state) for the vehicle plus a portion of the funding for a charge station at home. Additionally, a community who supports EV infrastructure will make those PEV owners proud of their city and have an overall positive impact for them.

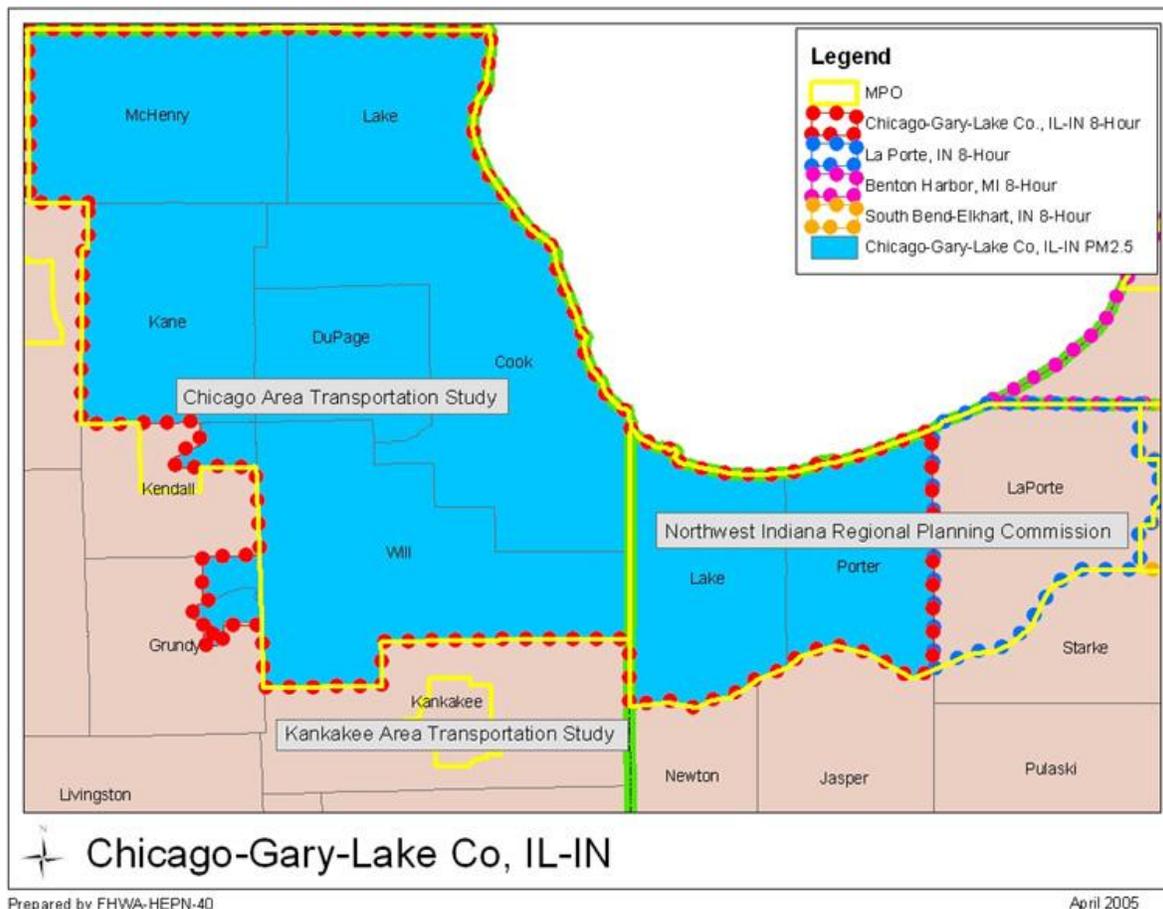
There has been an increased interest in managing our electrical grid more efficiently. The battery in the PEV can be used for storing electricity for transportation purposes along with managing electricity demand (demand management). The battery can push energy to the grid when needed and take energy from the grid when there is excess. This will help reduce the need for heavily polluting and extremely expensive peaker plants. For example, many vehicles will charge at night when there is excess energy available and then sell this stored power into the grid during the day when the energy is most needed and in demand. Vehicle to grid (V2G) will provide communication with the power grid and allow for the sale of demand response services (sale of power when it is most needed). This may not be viable initially but we should start to align for future goals and for the potential of a smart grid in Highland Park. This could be financially beneficial to the consumer as it is expected that the PEV owner will be paid a premium for any energy used in their battery pack.

## Community

Electric vehicles help to reduce greenhouse gasses and other pollutants that are harmful to human health, and we all want to live in a cleaner, healthier community. This is particularly important in the Chicago Metropolitan area including Lake County since it is considered a Nonattainment Area. This means that we do not meet National Ambient Air Quality Standards (NAAQS) “for pollutants considered harmful to public health and environment”, standards which are regulated by the United States Environmental Protection Agency”. The reduction of pollutants that are harmful to human health is vital to the area and the residents of Highland Park.

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**Figure 2: Nonattainment Area Map. Lake County (Upper Left) is in the Nonattainment Area and Requires an Action Plan**



The PEV charge stations are typically very visible so it lets individuals know that Highland Park is a forward thinking and innovative community. This also shows that the “call to action” has been heard and that the community is addressing the need for energy security, reduced tailpipe emissions, and an overall healthier, cleaner city. The charge station and the communication associated with it can be leveraged as an educational tool for the community. The PEV infrastructure is scalable, allowing for a large impact on air quality and resource dependence.

In 2011 the US spent about \$327 billion on net oil imports (i.e., imports less exports). According to the Highland Park Sustainable Community Strategic Plan, in 2008 it was found that the average resident drives 19,527 miles per year. According to the Department of Energy the average vehicle in the US gets approximately 26.7 MPG leading us to conclude that an average Highland Park resident consumes 731 gallons of gas every year. In 2011 the average price for a gallon of gasoline was \$3.53 per gallon which means that each vehicle owner is spending approximately \$2,581 annually on

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gasoline. By shifting to electricity, a domestically produced fuel supply, we can make numerous positive impacts in and around our community including the following:

- Generation of jobs: According to a report by PRTM, a management consulting firm, by 2020 the PEV market and connected industries could create somewhere between 125,000 to 300,000 jobs.
- Reduction in the federal budget and trade deficit: Less oil imported and more “fuel” created domestically.
- Increased Income: Increase in the typical household’s annual income available for consuming or saving.
- Energy Independence: Move towards energy independence.

As a greater number of electric vehicles come to Highland Park there is a potential reduction in the number of gas stations needed to support city growth. While the “swapping” of electric vehicle charge stations for gas stations may initially appear negligible, there are multiple benefits to the community, which include the following:

- Reduction in the potential site contamination associated with underground storage tanks (i.e., groundwater contamination).
- Reduction in harmful toxins (e.g., Benzene and Toluene) in the air surrounding the actual gas station.
- Stronger opportunity to promote biking and walking which is part of the Highland Park Bike/Walk plan. Gas stations are designed to accommodate a large number of automobiles and makes biking and walking near a gas station unsafe.
- If applicable, a repurposed site can enhance the character of Highland Park and increase property values in nearby neighborhoods.

Rating agencies, analytics and data platforms, and other financial institutions have spent a considerable amount of resources looking at and incorporating environmental performance into their business. In the private sector, both a company’s valuation and their cost of capital are being influenced by how effectively they manage environmental risks. The methodology and the indices currently used to evaluate businesses may soon be - if they are not already - used for municipalities and ultimately affect their cost of capital. Therefore, by continuing to advance the Highland Park Community Sustainability Strategic Plan, the city will mitigate some potentially negative effects of increasing capital costs.

## Businesses

The businesses in the area will be able to benefit from more stable sales, independent of the price fluctuations of gasoline. Reducing the community’s reliance on gasoline, and the volatile prices associated with it, can help the business’s overall resilience and reduce any negative economic impact that can stem from spikes in gasoline prices. In addition, charge stations can attract BEV owners to come to and stay at shops for longer, which may encourage them to spend more time and money at these shops. This is because they need some time to charge their vehicle.

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# Highland Park Baseline

Highland Park has a reputation for being a leader in the BEV market and hosts the first BEV charge station to be powered by wind in the continental United States. The BEV market is fairly new and although there is a hope to enhance BEV adoption, currently only a small fraction of Highland Park residents and visitors drive one. Currently there are two Level 2 EV charge stations in the City of Highland Park that are listed below:

- EV Charging at ESB Law Firm (440 Central Avenue, Highland Park, IL 60035)
- 350 Green Charging at Walgreens (655 Elm Place, Highland Park, IL 60035)

Out of the total 17,350 registered vehicles in the City of Highland Park there are 9 registered PEVs. This only includes the PEVs that have the capacity to be plugged-in and recharged (i.e., excluding non-plug-in hybrids).

**Table 2: List of the PEVs Registered in Highland Park**

<b>Make</b>	<b>Model</b>	<b>Number of Vehicles</b>
Chevy	Volt	3
Fisker	Karma	1
Nissan	Leaf	3
Tesla	Model S	2
<b>Total</b>		<b>9</b>

# Charge Station Recommendations

It is important to ensure the installation of charge stations that will be used frequently. Below are some recommendations for the charge stations:

- Ensure the stations are convenient and highly visible to a large number of potential and actual PEV drivers. If the station is in a garage consider painting the wall to promote the station and explain the benefits derived from the station.
- Parking garages can provide cost efficiencies and reduced complexity due to existing electrical wiring and structures.
- Office parks or train stations.
  - The charge station can be used consistently during normal business hours and has the potential to be used by visitors to the city center on weekends and evenings. It is generally recognized that office parks provide a better location than train stations since most train commuters drive a shorter distance to the train than individuals drive to their offices.
- Recommendations
  - The table below lists the optimal locations and charge station types. The information is from the CNT Energy report for the City of Highland Park.

**Table 3: Charge Stations Recommendations**

Type of Charge Station	Typical Location	Charging Time (for full recharge)	Electricity Requirements	Notes
Level 1	Home, business	2 to 5 miles of range per hour of charging.	15 or 20 amp breaker with 120 volt AC circuit.	May not charge all on-road cars without special adapter.
Level 2	Home, public	10 to 20 miles of range per hour of charging.	40 to 100 amp breaker with 208 or 240 volt AC circuit.	Most suitable for public places.
DC Fast Charging	Commercial, public	60 to 80 miles of range in 20 minutes of charging.	60 plus amp breaker with 408 plus volt three phase circuit with grounding equipment; off-board charger to deliver DC current directly to car.	Very expensive and not designed to replace overnight charging (wears down battery).



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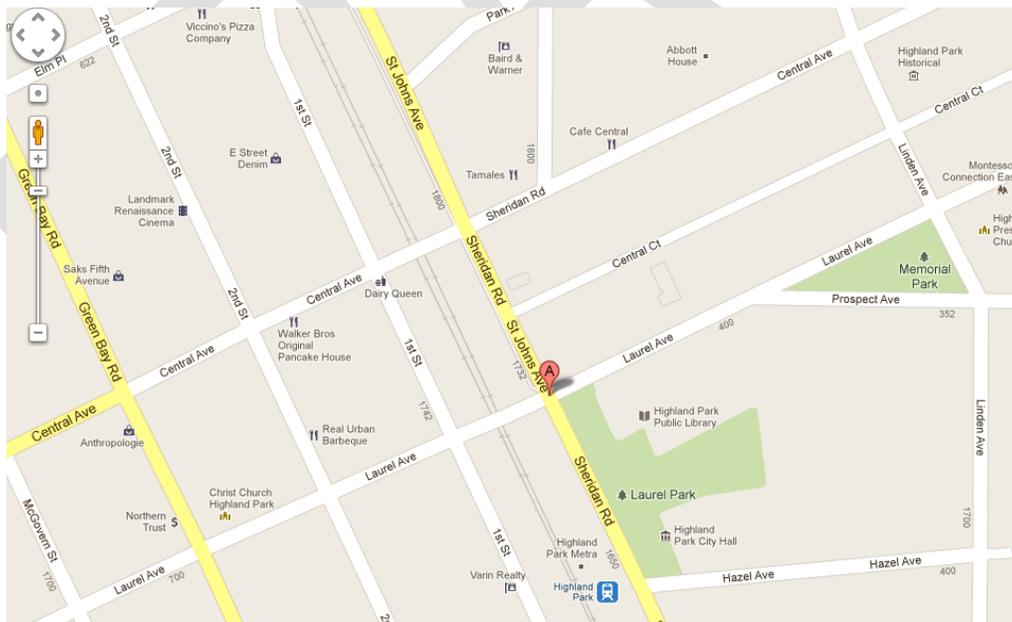
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# Highland Park Recommendations

- Type: Dual, Level 2 charge station.
- Location: Lower level of the parking garage at Laurel Ave. and St. Johns Ave.
  - This parking structure does not appear to be overly crowded and has much of the ideal infrastructure already in place including access to an electrical outlet and cement protection posts in place to reduce the opportunity for any damage the charge station.
  - The diversity of destinations near this parking structure adds to its attractiveness. This space could provide parking for anyone working or visiting the businesses, retail shops, or restaurants in the area, going to the library, visiting or working at City Hall, or commuting by train.
  - Registering the charge station with US Department of Energy's Alternative Fueling Station Locator will allow for stations to be found via GPS, computer, and mobile applications. This will provide excellent exposure and a high-level of utility for PEV owners.

Figure 3: Google Maps Screenshot of Recommended Location



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**Figure 4: Images of Types of Charge Stations**



**Wall Mounted EV Charge Station**

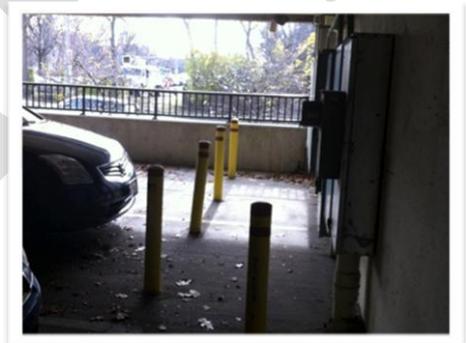


**Free Standing Charge Station**

**Figure 5: Illustrative Images of the Benefits to This Location**



**Parking Garage Entrance – Need to Add Signage at Entry**



**Protective Posts and Electrical Connections**

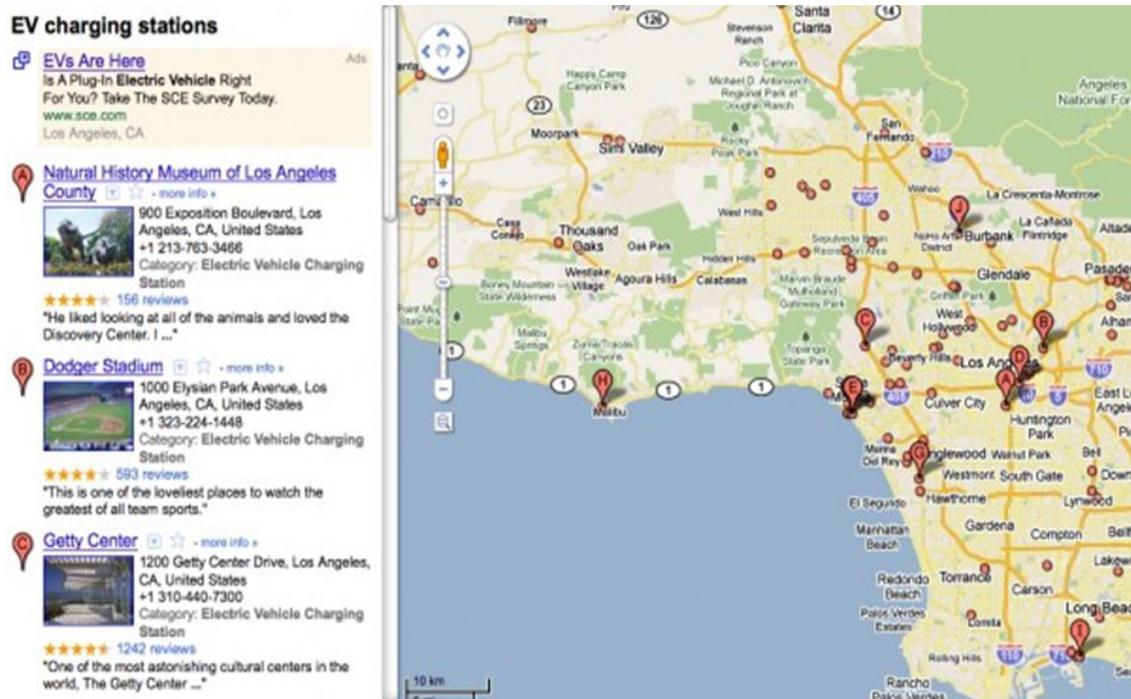


**Protected from the Elements**



**Not at Maximum Capacity**

Figure 6: Example of PEV Charge Station Map



# Budget

The costs for the charge stations can vary significantly. The costs include the pricing of the actual charge station and equipment, the installation costs, the potential need for a sub-meter or other infrastructure upgrade expenses and additional networking and electricity costs. This pricing is based on a recommended Level 2, dual charging station. The rebate is described in the Appendix 1: Rebate Program.

Table 4: Cost Approximations of a Dual Level 2 Charge Station and Installation

Item	Before rebate	After rebate
Dual Level 2 charge station	\$7,000	\$3,500
Installation costs (typical range \$2,500 to \$7,500)	\$5,000	\$2,500
Signs	\$2,500	\$2,500
<b>Total</b>	<b>\$14,500</b>	<b>\$8,500</b>

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# Regional Approach

Charge station hosts cannot charge for electricity directly due to the fact that there are regulations prohibiting this. To get around this obstacle charge station hosts collect revenue via a subscription-based system, pay-per-use, or pay-for-parking system. By taking a regional approach and partnering with surrounding municipalities a more cohesive, less fragmented solution will be derived while reducing the opportunity for mistakes and increasing overall project quality. The opportunity for a PEV owner to have one charge station subscription and be able to charge in any of the partner cities will give that individual a greater incentive to buy and operate a PEV. Installing this larger cluster of charge stations over a short period of time will be more visible and encourage greater investments by others who know permitting is not an obstacle and that there are already stations in place.

# Business Models

There are several business models that can be deployed with PEV charge stations. The recommended model is one that incorporates profit sharing partnership with a servicing company. This model drastically reduces time associated with managing these charge station. The City will allow a company to manage the City-owned charge station in exchange for a portion of the profits brought in from the charge station. Initially, the City should receive a greater portion of the profits but once the charge station expenses have been covered, the profit sharing model is expected to approach a 50/50 split. Although the main objective of this initiative is to address the need for energy independence and assist with public health, among other things, the fact that some, if not all, of the cost for these charge stations can be recovered to replenish the sustainability fund is a positive.

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# Public Relations

In addition to the installation of the charge station, communication with the community about the new charge station is important. To properly do this we will want to add signage both within the garage and at or near the garage entrance. The City has access to signs that can be used to properly mark the garage spaces and the outside of the garage to indicate charge station availability. We will look at some of the more noticeable station painting to determine if this is of interest as well. A design competition at the local schools would help educate the students while providing a unique, personalized design for our signage.

Beyond signage, the City can incorporate information into The Highlander City Newsletter and on the website to inform residents and visitors. A short article about the new charge station can help to increase the community awareness while also encouraging more people to consider a PEV for their next car. Lastly, a small ribbon-cutting event could also be leveraged to shine a spotlight on this new community amenity.

With increased cellular mobility and the use of mobile applications, it is recommended that Highland Park include charge stations in the network connection to allow individuals to see the charge station location on their GPS, computer, or mobile device. To get the stations to be added to the network there needs to be a registration and a fee paid but the result is that individuals can find these on their GPS and mobile devices. This station will also be registered on the US Department of Energy’s Alternative Fueling Station Locator website, which is free and will help ensure maximum exposure.

Although this is a useful charge station that will be utilized by the Highland Park community and those visiting, this is also something that should be used to determine the feasibility of a larger scale implementation. By tracking usage patterns and doing interviews with residents we can determine the future opportunities that may exist for additional charge stations in and around the city.

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**Figure 7: Illustrative Examples of Potential Types of Signage**



**Educational Signage**



**Simple but Effective Signage**



**Cost-Effective Signage**



**Fun and Engaging**

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# Key Risks

Even with strong support from the City of Highland Park there are risks that should be considered that may affect the PEV adoption rates. Volatility in gas prices have made dramatic effects on the adoption rates in hybrid vehicles and any sustained price drops could negatively impact PEV adoption rates. There are also concerns that surround the economy. If consumers find themselves in hard economic times they may not be willing to pay any premium for an electric vehicle, even if there is a future fuel savings. Although we currently see vehicle electrification as a viable alternative there are several other alternatives such as natural gas that could be viewed as even more appropriate and/or economically viable.

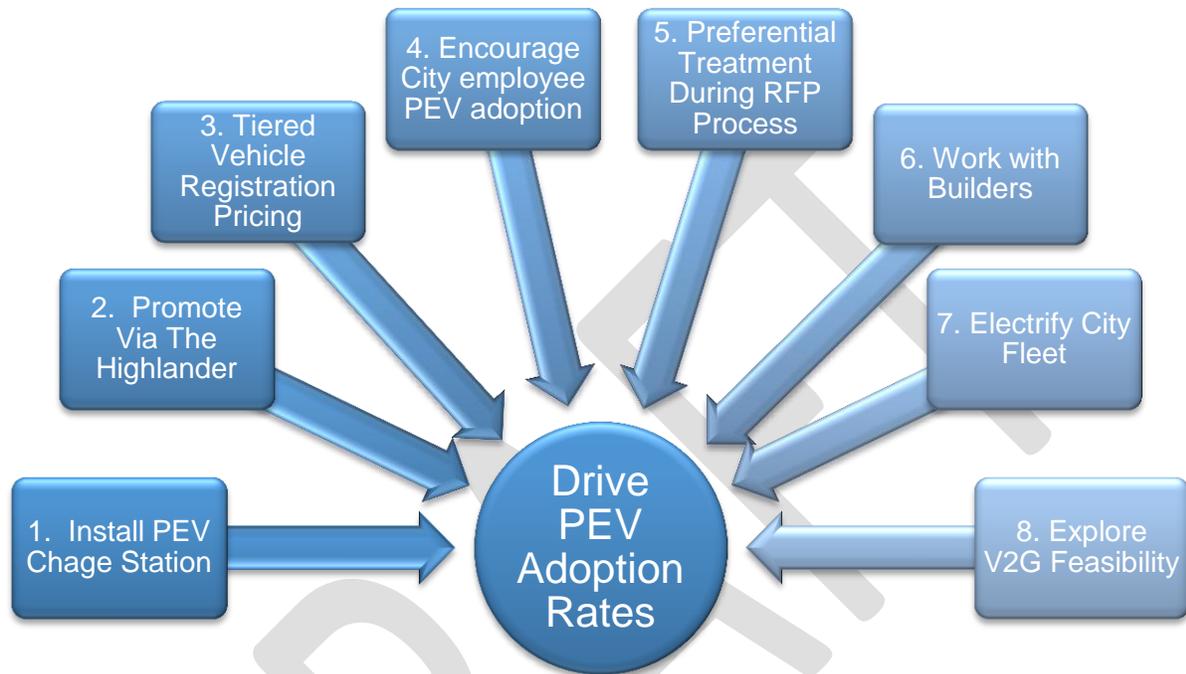
It is expected that most individuals will charge their BEV at night when there is excess power available. If this is incorrect and the adoption of the BEV is tremendous, we may need to address this intensity and increase the grid's ability to handle this added demand. On the other hand, if consumers decide that a BEV is not the best vehicle for them; the City may have an underutilized charge station on City property.

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# Project Phases

Figure 8: Diagram Showing the Project Phases



## Phase 1: 0 to 6 Months

- Install a demonstration Level 2 charge station that has two plugs and will be used for charging up to two PEVs. This station will also be leveraged to teach the community and those visiting the community the benefits of a PEV.
- Communicate the installation of the charge station in The Highlander, on the website, and in other communication outlets.
- Host ribbon-cutting event and lead tours of this for high school students and others who are interested.
- Collect data and use this information in future phases or to encourage others to install charge stations.

Note: Please see Attachment 1: City of Highland Park – Electric Vehicle Expansion Project Plan for specifics on timing and next steps.

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## Phase 2: 6 Months to 3 Years

To properly assist in the communication surrounding the importance of PEV adoption it is essential that the City focus its efforts on a multi-pronged marketing plan. A single communication channel seldom provides high-impact reach to the target market. Incorporating multiple touch-points will optimize both impact and the cost to benefit ratios. Additional incentives and touch points include:

- Implement tiered pricing for vehicle registration to incentivize consumers who purchase a PEV. This will create a high number of touch points via an existing marketing channel. This pushes demand while making tracking easier. Additionally, over 17,000 residents will renew or purchase a new vehicle sticker each year. By choosing their vehicle category, they will be reminded that there is a preference for PEVs by the community that presents a potential cost savings to them. This is at a minimal cost to the City and should be re-evaluated annually. To help reduce trips, and the pollution associated with these trips, a \$5 discount should be offered to those who register on-line or by mail. This will be more environmentally friendly and reduce vehicle registration backups.
  - Current - \$40 per year for all cars.
  - Recommended.
    - \$10 per year - PEV (BEV and PHEV).
      - \$5 discount if done on-line or by mail.
    - \$50 per year - traditional internal combustion engine (ICE) vehicle.
      - \$5 discount if done on-line or by mail.
    - \$100 per year - SUV.
      - \$5 discount if done on-line or by mail.
- Encourage employees to buy PEVs.
  - Survey employees and add charge stations in locations where employees will park a PEV.
  - Provide favorable parking for electric and hybrid vehicles and educational opportunities including “lunch and learn” and short informational documents.
- Provide preferential treatment to companies with PEV fleet vehicles during any bidding processes. A greater percentage of vehicles being electrified have numerous advantages to the city, this will level the playing field for the companies who decide to support this initiative.
  - Factor in a question in all RFPs asking about the use of PEVs in fleet vehicles.
  - Give companies that have 25% or more of their fleet vehicles electrified a 0.5% pricing advantage.
    - Example: a company bidding at a price of \$1,000 would receive a 0.5% discount and be considered to be priced at \$995.
- Continue to communicate the importance of owning a PEV to the public via the Highland Park web site and periodic articles in The Highlander.

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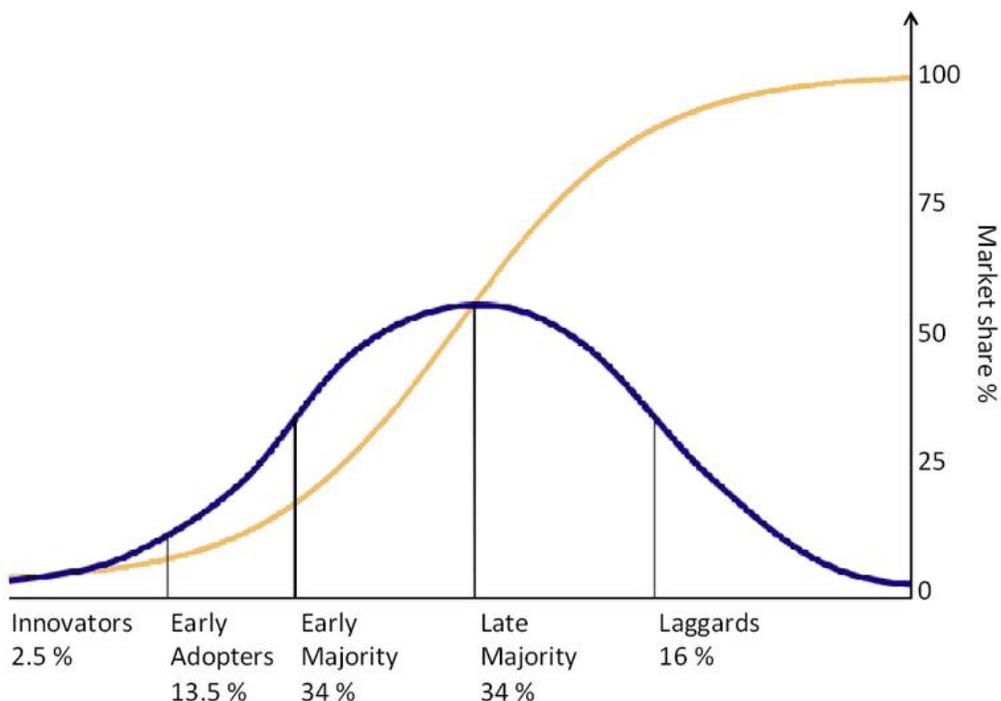
- Encourage charging station installation in new homes and buildings via building permits and/or rebates.
  - Encourage public-private partnerships so that businesses can receive both federal and city incentives.
    - Example: Provide an extra 10% rebate from the City to go towards station and install costs. This will help to leverage funds.
  - Add the requirement for new parking lots and garages in both commercial and residential facilities to have PEV charge stations installed when they are built. Work with home owners associations to offer grid connections for residents who want to install a charge station in their parking garages.
  - Work with large businesses in Highland Park to encourage the placement of charge stations.
- Incorporate PEVs into the City fleet.
  - Conduct a study on the City's current fleet vehicle needs and determine the appropriate mix of BEV, PHEV, and ICE vehicles. Additionally, review car sharing opportunities to lower costs and provide access to these vehicles for those living in the community.
- Explore vehicle to grid (V2G) opportunities and feasibility.
  - In alignment with the Highland Park Sustainability Strategic Plan, shifting towards a Smart Grid is encouraged, and PEVs provide the energy storage needed to make this possible. Consider clean energy when doing this.

## Performance Metrics

The growth curve of the PEV market is expected to start slowly but gain exponentially year over year. This is consistent with the technology adoption lifecycle and something other cities have been incorporating into their expansion plans.

As mentioned earlier, BP expects the EV market to grow to 8% by 2030 but since we are still in the first quadrant of the technology adoption lifecycle our growth predictions must take this into consideration. Over the next several years we will want to focus our efforts to grow the number of PEVs owned in Highland Park. Each year there should be an analysis of the growth trends and performance targets should be set for the next year. Over the next year our goal is to double the current PEV market.

**Figure 9: Technology Adoption Lifecycle**



By growing the number of plug-in vehicles owned in Highland Park from 9 to 18 the new consumers will receive up to \$11,500 in incentives each, or \$103,500 total. There are additional incentives in place for home charge stations that could account for an even better economic picture. Additionally, the amount spent annually on gasoline should be reduced by as much as \$2,581 for each vehicle owner or \$23,229 total for the 9 additional PEV owners. It should be noted that these savings numbers are based on all electric vehicles. PHEVs and REEVs will not typically qualify for all of the incentives or reduce gasoline consumption as much as mentioned above. This will help to reduce our national trade deficit and result in a stronger local economy due to the fact that the electricity used to fuel the PEVs will be produced on a more local level.

**Table 5: Current Assessment and Goal to Measure Project Success**

	<b>Present (as of 01DEC12)</b>	<b>01DEC13 Goal</b>
<b>Registered PEVs</b>	9	18
<b>Charge Stations</b>	2	4
<b>Communication (i.e., Articles in The Highlander)</b>	1 (last 12 months)	2

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# Appendices

## Appendix 1: Rebate Program

To help advance the electric vehicle infrastructure (specifically level 2 charge stations) the DCEO is offering rebates to governments, businesses, educational institutions, non-profits, and individuals.

### Definitions:

- **Dual Station:** A charging unit with two cords that can charge two vehicles at the same time.
- **Networked Station:** A charging unit with cellular, wireless, or cable connectivity to enable remote communications.
- **Level 2:** 208 to 240 volt AC charging unit with a cord connection.

### Rebate information:

- Rebate can be used towards a Level 2 charge station.
- Rebate covers 50% of equipment and installation, including materials and labor, with caps at:
  - \$3,750 per networked single station.
  - \$3,000 per non-networked single station.
  - \$7,500 per networked dual station.
  - \$6,000 per non-networked dual station.
- Purchase and installation must be complete prior to submitting the rebate application. The deadline for rebate applications is 4:30 pm on Thursday, December 20, 2012. Kate Tomford with the Illinois DCEO has advised that the state will offer a similar rebate in the coming year.

### Recommendations (not requirements):

- Register installed PEV charging unit on the U.S. Department of Energy's Alternative Fueling Station Locator website (3.2.10 – application location).
- Follow recommendations on installation that are compliant with the Americans with Disabilities Act (ADA) (3.2.11 – application location).

### Eligible costs:

- Labor and materials.
- Up to two years on annual service fees required to connect and maintain connection of a PEV charging unit to a network.

### Ineligible costs:

- Repair - renewable energy – signage - education and outreach

Illinois Department of Commerce and Economic Opportunity (DCEO): Energy & Recycling.

[http://www.ildceo.net/dceo/Bureaus/Energy\\_Recycling/ev.htm](http://www.ildceo.net/dceo/Bureaus/Energy_Recycling/ev.htm)

Submit via e-mail to [IllinoisEV@Illinois.gov](mailto:IllinoisEV@Illinois.gov)

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## Appendix 2: Interviews – Kate Tomford and Jason Meiner

### Kate Tomford

Illinois Energy Office

Illinois Department of Commerce and Economic Opportunity

Electric Vehicle Advisory Council

1. Tell me about some business models used by other cities and villages – public-private partnerships (leveraged funds) for both the electric vehicle and any additional communication (websites).

*Chicago – leveraged commitment was too high and the company fell through. Check finances and stability of the company before partnering with them.  
Good takeaway is to outsource everything to an owner operator. Consider avoiding city property and use business property if possible.*

2. What are the location considerations and recommendations (public vs. private land)?

*Use private land if possible.  
If public - make it free for employees and outsource financial payments and maintenance for others.  
Oak Park & Evanston are working on a charge station. Perhaps we want to talk with them and share tips.  
Franklin Park has (Carmen Capello) installed a charge station at a Metra stop.*

3. What sorts of communication (websites) works the best?

*Look at driveelectricillinois.org as well as EV town. Perhaps link City website to the Drive Electric web site. This site has a number of calculators and other useful data.*

4. What do you recommend we use for quantification of economic impact in city or region and other items we should include in our reports?

*Categories of benefits:  
Show how much a consumer can save  
There is a savings tied to maintenance and gas (Google – DOE – Advanced energy) – clean cities.  
Discuss the economic development for EV – supply chain and battery tech – Argonne – All Cell.*

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5. Can we review the possible issues that could arise?

*Permitting can be tricky so be sure to work closely with the city officials to help with this and leave extra time for this in your project schedule. In the future we may want to help make permitting easier for individuals living in the city.*

6. What items should we be aware of when building out an RFP?

*Know the business model we want – connections, networking, revenue share, electricity and who is paying. Who has the ultimate responsibility? Who is determining the sites? Our idea of a good site may be different than a vendor's idea of a good site. Consider allowing them to propose sites and we can choose the top sites (they propose 10 we choose our top 5).*

7. What are the best ways to encouraging future installations – new parking facilities & homes?

*There has been much discussion surrounding this topic. Incorporating requirements into the building codes and requirements makes sense since this is the most economically viable approach. Take a look to see if Vancouver has moved forwards with any of this.*

8. What additional comments do you have?

*The rebate will remain similar to today (same). Apply as early as next summer but this can backdate to September 2012.*

*Promote and educate the dealerships on the rebates*

*Federal Credit – up to \$7,500*

*Illinois Rebate – 80% of incremental cost - \$4,000*

*Illinoisgreenfleets.com – for fleet managers*

*Can we offer free city stickers to anyone who has a PEV? Perhaps even create a tiered system with an SUV being most expensive and less for a hybrid...*

*Funding – The EV Project – Ecotality – No rebate but free charge stations and up to \$1,000 towards installation. This seems to be a good deal. Check to ensure there are no strings attached since you need to negotiate into future contracts. Someone needs to service these stations. Not too different than offers by Coulomb where you need to use their subscription and servicing.*

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## **Jason Meiner**

Motorola Solutions

Electric Vehicle Infrastructure

Interview

- Installed one dual charger.
- Both chargers are used every day.
- Doubled the number of PEV's being driven by Motorola employees.
- Requests are coming in for more in Schaumburg, New York, and Florida.
- Used prime parking space.
- No complaints from non-PEV drivers.
- The charger took longer than expected to receive (i.e., one month).
- If we install these ourselves how do we get the rebate on installation costs – bill ourselves?
- Cost: \$15,000 before rebates – should be around \$8,000 after rebate.

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## Appendix 3: 2011 RFQ – City of Highland Park



City of Highland Park – Department of Public Works  
Lake County, Illinois



### REQUEST FOR QUALIFICATIONS AND FEE PROPOSAL

For

**ELECTRIC VEHICLE CHARGING STATIONS**

**PROFESSIONAL SERVICES CONTRACT**

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1. Objectives
2. Milestones
3. Scope of Work
4. Submittal Format
5. Professional Services Criteria



Robert McCraren, Superintendent Facilities and Grounds

March 31, 2011

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**REQUEST FOR QUALIFICATIONS AND FEE PROPOSAL  
For  
Electric Vehicle Charging Station**

**1. OBJECTIVES**

The City of Highland Park is seeking qualified firms to be candidates for selection to provide Electric Vehicle Charging Stations within the City of Highland Park parking lots. The selected firm will work with the City of Highland Park on a planned implementation of a vehicle charging network and fee reconciliations for customers. The firm will provide plans and specifications for installation and field inspection services associated with the application of the requirements specified.

**2. MILESTONES**

City issues Request for Qualifications:	March 31, 2011
<b>Qualifications and Fee Proposal submitted:</b>	<b>April 14, 2011 4:30 p.m.</b>
Interviews (if required):	April 25 – 29, 2011
Sealed Request for Proposals issued:	May 5, 2011
Proposals submitted:	May 19, 2011
Interviews (if required):	May 23 – 27, 2011
Contract Award by City Council:	June 13, 2011
Start Project:	July 5, 2011
Complete Project:	November 18, 2011

**3. SCOPE OF WORK**

Required work shall include:

- a. Creations of all engineering/architectural plans for review by the City for all work associated with the proposed charging stations.
- b. Provide documentation that all plans and specification for charging stations are in compliance with the code requirements and all codes which may apply to the installation of the charging stations.
- c. Provide details as to where the charging stations will be installed and the best practices associated with charging stations for both consumers and City employees.
- d. Brief City staff on plan review and construction activities.
- e. Attend meetings as required by City.
- f. Conduct final inspection of completed projects.

**4. SUBMITTAL FORMAT**

Discussions of the following items should be included:

- a. The firm's qualifications to provide engineering/architectural plans and inspection services associated with the work to install new electric charging stations within the City of Highland Park.
- b. The firm's qualifications including specific references to related projects and list any previous interaction with the State of Illinois and City of Highland Park.

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**REQUEST FOR QUALIFICATIONS AND FEE PROPOSAL**

**For  
Electric Vehicle Charging Station**

- c. Conditions that may impact availability of the charging stations and the compatibility to multiple vehicles and vehicle types. If for any reason, a change in charging stations due to hardware or software upgrades is recommended, the City will reserve the right to approve the replacement or upgrades before implementation.
- d. Impact the load requirement on City energy consumption and the Power Supply of the purposed charging stations.
- e. Types of payments available for consumers (i.e., US Currency bills, coins, Credit Card, Debit Card, Planned Payments) and how collection is handled.

Following the review of the proposals, some firms may be requested to provide additional information or attend an interview.

- 1. A Fee Proposal, utilizing the attached form, is to be submitted in a sealed envelope, separate from the rest of the qualifications.
- 2. The Fee Proposal must include hourly rates inclusive of administrative and overhead costs.
- 3. The Fee Proposals will not be utilized to select the firm but will be used as the basis for negotiations leading to a contract.

A conflict of interest statement is required.

**5. PROFESSIONAL SERVICES SELECTION CRITERIA**

Qualifications shall be evaluated by the Director of Public Works and the Superintendent of Facilities and Grounds and/or their designee. Thoroughness, technical competence, and experience of the firms shall be considered in ranking qualifications. The following criteria shall aid the City in selecting the most qualified firm:

- a. Technical competence as evidenced by the professional qualifications and related work experience of the firm. List specific professional qualifications, training, and experience of the assigned and committed personnel for the satisfactory performance of this work.
- b. Previous experience of the firm with related work. Names and telephone numbers of client contacts shall be considered.
- c. A discussion of the firm's understanding of the work to be performed and a description of the technical approach to be taken to accomplish this work. Changes to the Scope of Work may be suggested based on the firm's understanding of the work.

**The qualifications are to be submitted to:**

**Attention: Robert McCraren, Superintendent of Facilities and Grounds  
Department of Public Works  
1150 Half Day Road  
Highland Park, IL 60035**

Attachments: Fee Proposal Form

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**REQUEST FOR QUALIFICATIONS AND FEE PROPOSAL  
For  
Electric Vehicle Charging Station**

**FEE PROPOSAL**

Firm Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_  
Address: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Telephone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
Email: \_\_\_\_\_

The following is submitted for the work addressed in the Request for Qualifications and Fee Proposal for Electric Vehicle Charging Stations.

Item	Hourly Rate
Plans, Specifications	
Field Inspection	

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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# Contact Information



*[ki'-mah-noks'] means Ideal Knowledge Transfer*

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**NATURAL RESOURCES COMMISSION ACTION PLAN 2013**

Action #	ACTION ITEM	TASK	RESPONSIBLE PARTY	First Quarter 2013	Second Quarter 2013	Third Quarter 2013	Fourth Quarter 2013
2013 WORK PLAN PROPOSED FOR CITY COUNCIL CONSIDERATION							
1	Help Publicize the LMWEP Ravine Standards Guide	Work with a Contract Professional to Develop and Promote Guidelines			√	√	√
2	Review Composting Program Results & Provide Feedback	Make Recommendation to the City Council Regarding the Effectiveness of the Program			√		
3	Review Recycling Facility Hours & Provide Feedback	Make recommendation to the City Council Regarding the Effectiveness of the Facility's Existion Operation			√		
4	Work with Staff to Prepare an Illinois Green Infrastructure Grant Application	Identify Opportunities for Collaboration on a Project; Submit for Funding Consideration by the IEPA				√	√
5	Conduct Outreach on Polystyrene Recycling Pilot Program	Work with Business Owners to Continue to Distribute Promotional Stickers & Posters on an as Needed Basis		√			
6	Conduct Outreach on Plastic Bag Recycling Receptacle Requirements	Continue to Work with Business Owners to Track Data and Ensure Compliance	Community Development Staff	√			
7	Conduct Outreach on Commercial Facilities and CBD Recycling	Work with Business Owners, Provide Information on Web and in Highlander		√			
8	Grant Award for Meritorious Service to the Highland Park Environment	Accept & Consider Nominations and Grant Award	Staff & Entire Commission				√
9	Seasonally Update the Educational Displays in the Kiosks at Rosewood and Millard Parks	Work with the Park District to Create & Display Spring Posters		√			
		Work with the Park District to Create & Display Summer Posters			√		
		Work with the Park District to Create & Display Fall Posters				√	
10	Participate in Beach, River & Ravine Cleanup Events	Look into Sponsorship Opportunities for the Alliance for the Great Lakes Adopt-a-Beach Event				√	
		Look into Sponsorship Opportunities for the Friends of the Chicago River Cleanup Event			√		
		Secure Dumpster for Collection			√		
		Promote & Assist the Park District with Ravine Cleanup Events			√	√	
11	Participate in July 4th Event	Secure Tent, Table & Informational Material				√	
		Staff Booth at July 4th Event				√	
12	Draft Articles for the <i>Highlander</i>	TOPIC TO BE DETERMINED		√			
		TOPIC TO BE DETERMINED			√		
		TOPIC TO BE DETERMINED				√	
		TOPIC TO BE DETERMINED					√
13	Organize & Host Environmental Movie Series	Contact Library to Establish Event Dates	SUBCOMMITTEE	ONGOING BASIS			
		Acquire License to Screen Film	SUBCOMMITTEE	ONGOING BASIS			
		Promote Film Screenings	SUBCOMMITTEE	ONGOING BASIS			
14	Participate in Project Citizen	Assist Students with Project & Keep Commission Updated on Efforts	Citizen Advisor Hill	ONGOING BASIS			
15	Participate in Green Team Initiatives	Attend Meetings & Give Input	Student Rep./Sustainability Director	ONGOING BASIS			
16	Participate in North Shore Environmental Commissioners Group	Attend Meetings & Give Input	Bill Bogot	ONGOING BASIS			
17	Assist in the Accomplishment of Sustainability Plan Initiatives	Establish Implementation Plan	Staff & Entire Commission	ONGOING BASIS			
18	Review & Recommend on Variations and Beach Structure Permit Applications	Forward Findings of Fact to ZBA & City Council	Staff & Entire Commission	ONGOING BASIS			
Pink Highlighted Cell = Task Accomplished							