



Electric Mobility Canada  
Mobilité électrique Canada

## Business Plan for 2008

As approved by the Board of Directors – December 19, 2007

### Board of Directors

#### Officers

Chair – Mike Elwood, Azure Dynamics  
Vice Chair – Steve Dallas, Toronto Electric  
Secretary Treasurer – Gitangali DasGupta

#### Directors

##### Representing

- Industry
- Energy providers
- End users
- Not for profit organizations

##### Name

Patrice Dupont - TM4  
Roger Martin – Unicell Limited,  
Catherine Kargas – Marcon DDM  
Roger Ludwick – Manitoba Hydro  
Richard Toupin – Hydro-Québec  
Ken Bondy – CAW Canada TCA Canada

### Staff

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# **1. Strategic Statements**

The following strategic statements were adopted for Electric Mobility Canada – Mobilité électrique Canada.

## **1.1 Vision**

The Vision for EMC/MEC is a Canadian society that accepts electric mobility, in all its forms, as the first choice for the transport of persons and goods. This has been achieved through collaborative efforts between government at all levels and the private sector supported by an informed public faced with increasing energy costs and concerned about the impacts of burning fossil fuels on the environment and quality of life.

## **1.2 Mission**

To establish electric mobility, in all its forms, as the primary solution to Canada's growing transportation energy issues and to assist its members in the fulfillment of their mandates.

## **1.3 Goals**

1. Raise public understanding of the larger issues affecting transport and create and maintain a positive image for the electric mobility industry.
2. Define and establish the government/industry partnerships necessary to introduce electric mobility technologies as appropriate to achieve societal, economic, and transport objectives.
3. Identify the actions required by industry and government agencies to accelerate the implementation of electric mobility. These actions could include research, funding, incentives, demonstrations, policies, regulations, etc.
4. Secure funding and the necessary partnerships for an on-going research program to deal with technical and other issues related to the advancement of electric mobility.
5. Provide members with current intelligence about the environment in which they do business, and develop strategies to assist them in successfully managing relevant issues.
6. Maximize member access to information on technical and operational matters.
7. Assist members to improve the efficiency, effectiveness, and overall competitiveness of their services and products.
8. Maintain strong ties with other transportation industry stakeholders.

## **1.4 Definition of Electric Mobility**

For purposes of this document, 'Electric Mobility' is defined as including all surface transportation, including off-road vehicles using electric drive technologies provided by:

- Battery operated (including ultra capacitors).
- Hybrid
- Fuel Cells
- Grid connected (tethered)

## 2. Membership Structure and Fees

The membership categories and fees detailed in Table 1 were endorsed for the year 2008.

Table 1 – Membership Categories and Fees

| <b>VOTING MEMBERS</b>     |   |                               |                              |
|---------------------------|---|-------------------------------|------------------------------|
|                           | <b>Membership Category</b>  |                               | <b>Annual Membership Fee</b> |
| 1                         | <b>INDUSTRY</b> (private sector companies engaged in the sale or distribution of vehicles or components or the delivery of professional services) | 50 or less employees          | \$700                        |
|                           |   | more than 50 employees        | \$1,500                      |
| 2                         | <b>Energy providers</b>   | At provincial level           | \$2,500                      |
|                           |   | At municipal level            | \$750                        |
| 3                         | <b>End Users</b> (i.e. fleets from private sector companies, governments agencies and others)   | Fleets over 50 vehicles       | \$1,500                      |
|                           |   | Fleet under 50 vehicles       | \$750                        |
| 4                         | <b>Not for Profit Organizations</b> (related associations, societies, research centres, labour organizations)                                     | Annual budget over \$500,000  | \$700                        |
|                           |   | Annual budget under \$500,000 | \$400                        |
| <b>NON VOTING MEMBERS</b> |   |                               |                              |
| 5                         | <b>Supporters</b> (academics or individuals not part of above categories)   |                               | \$150                        |
| 6                         | <b>Associate Members</b> (Gov't agencies at the federal, provincial or municipal)   |                               | \$1,500                      |

### 3. Report on 2007 activities

Table 2 summarizes the main activities carried out in 2006 as well as the EMC goals these activities contributed to.

*Table 2 – 2007 Activities*

| Activity # | Description  | Contributes to Goals |
|------------|--|----------------------|
| 1          | <p><b>Membership Development</b><br/>           As of November 28, 2007 we have the following membership:<br/>           Industry – 24<br/>           Energy Providers – 3<br/>           End Users - 9<br/>           Not for profit organizations – 12<br/>           Supporters – 10<br/>           Associates – 1<br/>           Total – 58</p>  | 1, 6, 7,             |
| 2.         | <p><b>Government Relations</b><br/>           Government relations activities during 2007 were principally focussed in the following areas. EMC is pleased to report that 'electric mobility' options are now being taken seriously at the federal government level.</p>   | 1, 2, 3, 4, 5, 7     |
| 2.1        | <p><b>Government Relations – Federal Government</b><br/>           At the federal government level, extensive activities were carried out in representing the interests of EMC – MEC at meetings with senior staff members and Ministers' staff members in the offices of the Prime Minister, Environment Canada, Industry Canada, Natural Resources Canada and Transport Canada. These meetings focussed on:</p> <p><b>The Early Adopter Program</b> seeking financial assistance for commercial fleet owners to help cover the premium costs of commercial hybrid and electric vehicles. We remain hopeful that the early 2008 budget will contain an announcement of this needed program.</p> <p><b>Road Map for Electric Mobility Canada</b> seeking federal government funds to identify the opportunities, barriers and solutions to the growth of the electric mobility industry in Canada. This project was approved in November 2007 and launching steps are being organized.</p> <p><b>Directory of Electric Mobility Resources in Canada</b><br/>           In November 2007, an agreement was signed with Natural Resources Canada for the compilation of a directory of electric mobility resources in Canada. This project is to be completed before March 31, 2007.</p> |                      |
| 2.2        | <p><b>Government Relations – Provincial Level</b><br/>           Our key effort was with the Province of Ontario where we successfully lobbied for an Early Adopter Program. \$15 million was announced for this purpose in early Fall 2007 and program administration details are currently being worked out.</p>   |                      |

| Activity # | Description  | Contributes to Goals |
|------------|--|----------------------|
| 3          | <b>Projects</b>  | 1,5,7                |
| 3.2        | <b>Monitoring the performance of Hybrid Commercial Vehicles</b> <ul style="list-style-type: none"> <li>▪ On behalf of Natural Resources Canada, we successfully monitored the environmental benefits of hybrid electric delivery vans used by Purolator from their Toronto terminal. The results showed a 33% reduction in fuel use and a 23% reduction in greenhouse gases.</li> <li>▪ On behalf of a member – eVionyx Inc. – we published a report on the characteristics of its battery and fuel cell technologies relative to others in the market place.</li> </ul> |                      |
| 4          | <b>Communication</b>   | 1,5,8,               |
| 4.1        | <b>Web site</b><br>By the end of 2007, a new web site is being created that should go on line in January 2008.   |                      |
| 4.2        | <b>Newsletter</b><br>EMC continues to publish newsletters in both languages with items of interest to our members. These are sent electronically to our members as well as posted on our web site.   |                      |
| 4.3        | <b>Networking Activities</b><br>Dialogue has been initiated with the following organizations for the purpose of exchanging views on electric mobility and for identifying possible joint actions: <ul style="list-style-type: none"> <li>▪ Electric Drive Transportation Association of the USA,</li> <li>▪ European Association AVERE</li> <li>▪ Canadian Electric Association</li> <li>▪ CEATI</li> <li>▪ Canadian Utilities Fleet Council</li> <li>▪ Canadian Courier and Logistics Association</li> </ul>  |                      |
| 5          | <b>Events</b>  | 1,3,5,6,8            |
| 5.1        | <b>Annual General Meeting</b><br>Our annual general meeting took place on October 2, 2007 just ahead of the MUTA Conference. It was well attended, had an excellent program and received many positive comments from the members. An expanded Board of Directors was elected.  |                      |
| 5.2        | <b>MUTA (Mobilité urbaine et transport avancé)</b><br>EMC participated in this international event on October 3 and 4. EMC staff and members addressed the delegates and participated in the accompanying trade show.  |                      |
| 5.3        | <b>EVS 23</b><br>EMC staff and several members attended the Electric Vehicle Symposium in Anaheim the first week of December. Staff gave a presentation to the delegates and manned a booth for EMC at the trade show.   |                      |
| 5.4        | <b>PHEV Conference</b><br>EMC staff and several members participated in this well attended conference in Winnipeg in early November. Many useful contacts were made.   |                      |

## 4. Strategies and Activities Proposed for 2008

The process for the identification of strategic projects and activities for 2008 was a multi staged process including:

- Staff listing all possible projects and activities for review by the Board of Directors.
- The Board discussing and ranking the items listed as well as suggesting new additions.
- Members being asked to rank the revised list and to suggest new items.
- The Board of Directors reviewing the members input and agreeing on the final content.

Table 3 summarizes the activities proposed for 2008. It should be stressed that Electric Mobility Canada – Mobilité électrique Canada aims to be a ‘results-oriented’ organization focusing its efforts on activities and projects that will provide the highest possible return at the earliest possible date.

*Table 3 - Proposed Focus for Projects and Activities for 2008*

| # | Description   |
|---|---|
| 1 | <p><b>Completion of the electric mobility resources directory for Canada.</b></p> <p>This activity has started with EMC receiving funds from Natural Resources Canada and the Canadian Space Agency to compile a directory of electric mobility resources in Canada. For all forms of electric mobility, this directory will list industry companies, government or academic institutions involved in related research, energy providers etc. It is expected to be completed by May 2008.</p>   |
| 2 | <p><b>Technology Road Map for Electric Mobility in Canada.</b></p> <p>A Technology Road Map (TRM) is a process tool to help identify the key technologies that an industry, a sector or a company needs to succeed in the future, and the projects or steps required to get those technologies developed and implemented by Canadian industry. The process will include consultations at the national and regional levels that will involve industry, users and other stakeholders. In late 2007, Natural Resources Canada announced its commitment to complete such a road map in the near future. Preliminary work is now underway and a full start is expected in early 2008. This will be a major activity for EMC in 2008.</p>   |
| 3 | <p><b>Existing regulations for Low Speed Electric Vehicles (LSV's)</b></p> <p>Current federal regulations allow all electric vehicles that do not fully comply with the Canadian Motor Vehicle Safety Standards to be operated on local streets at speeds not exceeding 40 km/h, when approved by provincial regulations. Amendments to these federal regulations are under consideration to:</p> <ul style="list-style-type: none"> <li>▪ Allow electric trucks to be classified as LSV also.</li> <li>▪ Suggest that all LSV's not operate in mixed traffic.</li> </ul> <p>EMC proposes two activities:</p> <ol style="list-style-type: none"> <li>a) To continue lobbying provinces to allow LSV's on local roads. BC is the only province where LSV's are now allowed.</li> <li>b) Oppose the proposed amendment that would further restrict the use of LSV's.</li> </ol> |

| # | Description  |
|---|--|
| 4 | <p><b>Electric Mobility Day on Parliament Hill</b></p> <p>When resources allow, this would involve EMC planning and coordinating a day when members would be invited to come to Ottawa to display their technologies/products and to meet with parliamentarians and senior officials. This activity could take many forms and options will be discussed by the Board of Directors in the coming months.</p>  |
| 5 | <p><b>Funding programs for accelerating electric mobility applications in the private and commercial sectors.</b></p> <p>This will include a variety of activities aimed at the federal and provincial governments.</p> <ul style="list-style-type: none"> <li>▪ A continuation of our Early Adopter Program initiative of 2007 pitched at the Federal Government. This was to provide financial incentives to commercial fleets to acquire electric drive vehicles. As a result of EMC's activities, Ontario announced a \$15M program in August 2007 and implementation details are being worked out.</li> <li>▪ We can also advocate for similar financial programs in other provinces.</li> <li>▪ We will also insist that electric vehicles qualify for financial rebates allowed to individuals acquiring energy efficient vehicles.</li> </ul>  |
| 6 | <p><b>Monitoring impacts of funding programs</b></p> <p>EMC will offer its services to funding agencies to monitor the environmental, industrial and other impacts of the funding programs in A.5 above or other funding support programs. When monitoring is done by others, EMC should accumulate all the relevant information for use in its government relations activities.</p>   |
| 7 | <p><b>Charging Facilities/Standards for Electric Vehicles</b></p> <p>This activity has several components:</p> <ol style="list-style-type: none"> <li>a) Continue to represent our members on an existing sub committee of the Canadian Standards Association looking at amending one section of the Canadian Electric Code dealing with the charging of electric vehicles.</li> <li>b) EMC to assemble all stakeholders (OEM's components, utilities) to agree on what is needed to ensure that remaining sections of the electric codes (national and provincial), as well as building codes are amended in a favourable way for electric vehicles. This group also addresses the impacts on utilities.</li> <li>c) EMC lobbies provincial and municipal authorities to include suitable electrical outlets (or at least provisions for future installations) in new multiple unit residential dwellings (i.e. condos and apartments) as well as in commercial buildings with underground or outside parking. We also encourage the retrofitting of existing buildings.</li> </ol> |
| 8 | <p><b>Monitoring electric mobility demonstration projects</b></p> <p>This will be a service to members for a fee and would involve monitoring the energy, environmental and other aspects of demonstrations of new technologies. Resulting information would be valuable to EMC and to the industry in its various activities.</p>   |
| 9 | <p><b>Duty cycle analyses</b></p> <p>Several fleet managers are under pressure to adopt 'green vehicles' and are apprehensive about what to acquire. Some have asked EMC as to what is available. It is proposed that EMC could offer a technical service called 'duty cycle analysis' which would examine the duty cycles and energy requirements of fleet vehicles and identify the</p>  |

| #  | Description   |
|----|---|
|    | 'greener technology' options available for consideration by the fleet managers. Much valuable information and techniques exist already. We would also identify current users of these technologies for reference purposes. EMC will not make a technology recommendation.   |
| 10 | <p><b>Continuous improvements to web site.</b></p> <p>A new EMC web site design will be unveiled in early 2008. EMC is devoting additional resources to its update and upgrades as needed.</p>  |
| 11 | <p><b>Cooperative Agreement with Electric Drive Transportation Association (EDTA).</b></p> <p>EMC and EDTA have had encouraging discussions about the possibility of a cooperative agreement promoting the exchange of information and services between the two associations. A draft agreement has been approved by EMC's Board of Directors and reviewed by EDTA. It is expected to be signed by both organizations in early 2008.</p>  |
| 12 | <p><b>EMC Chapters in Provinces</b></p> <p>EMC recognizes that many programs and regulations affecting electric mobility fall under provincial jurisdictions and increase the workload of national staff to monitor and intervene where necessary. EMC feel that provincial chapters may evolve in due course to work collaboratively with its national office. Electric Mobility supporters in Quebec have launched a provincial association called 'Véhicules Électriques et Écologiques du Québec - VEEQ'. Its membership structure is similar to EMC's. On a trial basis, EMC welcomes this opportunity to work with VEEQ and will propose a collaborative process whereby EMC and VEEQ can collaborate on Quebec based issues.</p> |
| 13 | <p><b>Electric Vehicle Symposium (EVS) 26 in Canada</b></p> <p>EMC will lead discussions during 2008 to determine the feasibility of hosting EVS 26 in Canada in early 2012.</p>  |
| 14 | <p><b>EMC participation in Trade Shows</b></p> <p>EMC plans to be present in trade shows where it can positively influence the Canadian decision making process in favour of electric mobility options. Such trade shows could include:</p> <ul style="list-style-type: none"> <li>▪ Federation of Canadian Municipalities Sustainable Communities Conference</li> <li>▪ Federation of Canadian Municipalities Annual Conference</li> <li>▪ Transportation Association of Canada Annual Conference</li> </ul>   |
| 15 | <p><b>Research Services for members</b></p> <p>Through its regular policy and technical activities, EMC develops extensive contacts with many organizations and individuals in Canada and worldwide. These contacts can be excellent research sources to assist members in identifying particular market opportunities for their products. Interested members are asked to contact EMC.</p>   |