

EVCO submission to MTO on Power Assisted Bicycles - July 9, 2009

Submission of the Electric Vehicle Council of Ottawa (EVCO), July 9, 2009

In response to Ontario Regulatory Registry, Ministry of Transportation 09-MTO006 posted June 18, 2009 and Ontario Environmental Registry, EBR Registry Number 010-6943 "The Future of Electric Bicycles ("e-bikes") in Ontario", Ministry of Transportation

The Electric Vehicle Council of Ottawa (EVCO) is committed to the use of Power Assisted Bicycles in Ontario.

EVCO recommends that the Ministry of Transport for Ontario NOT add any further regulatory restrictions to the operation of Power Assisted Bicycles as currently defined by Ontario legislation and Federal definition.

Power Assisted Bicycles (PABs or e-bikes) have been legal in Canada since the Federal definitions for PABs were introduced in 2001 by Transport Canada. The Canada-wide definition for PABs is clear, unambiguous and well developed. It was the result of extensive testing, user feedback and industry consultation. So far it has stood the test of time and is widely adopted across most jurisdictions in Canada.

PABs offer a safe, low-impact and environmentally friendly transportation alternative to Ontario residents. They are a low-cost mode of transportation with negligible environmental impact in operation. Jurisdictions across Canada report safe operation of PABs. Slow speeds limited to 32km/h of motor assist are equivalent to typical bicycle speeds. As a result the safety record for these bicycles has been excellent.

PABs offer increased mobility to bike riders of all ages and abilities. Considering the excellent eight-year track record in Canada and thousands of satisfied users, it is clear that PABs are here to stay.

Ontario was the only province to lag behind in recognizing PABs. In 2006, a full five years after the PAB definition was developed, Ontario consented to "testing" these bikes.

In 2006 after two thorough rounds of stakeholder consultation, Ontario began a "pilot test" of these vehicles which were already proven in operation across Canada. For an additional three years Ontario manufacturers, distributors, retailers and consumers were left waiting while operators safely rode e-bikes in other provinces. The Ontario Ministry of Transportation (MTO) promised to collect data on their operation and safety during the three-year pilot test. To date the "pilot test" is almost over and the MTO reports that they have collected no data. Despite promises of a thorough review, MTO staff reports no knowledge of numbers of e-bikes on the roads of Ontario and have collected no safety information.

As of April 2009 the PABs are now recognized in Ontario legislation - a full eight years after approval in Canada. Now MTO proposes to add additional regulatory requirements for equipment and operation of PABs on top of the legislative definition, despite the lack of any information or data showing this is

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necessary.

EVCO is of the opinion that any further regulatory restrictions would further damage this fledgling Ontario industry and would adversely affect the lives of Ontario residents by reducing or eliminating their access to and ability to ride these quiet, low-impact vehicles for daily transportation needs.

So far the Canada-wide (Federal) PAB definition has stood the test of time. Provinces across the country have harmonized operating requirements around the federal definition. Power Assisted Bicycles have an excellent track record in Ontario, Canada, North America and world-wide. There has been no information developed in Ontario in the three years of the pilot project (or in the past eight years of legal operation in Canada) indicating that any further regulatory restrictions are required. Indeed the MTO has collected no adverse reports or safety data indicating safety problems with PABs from any other jurisdictions.

In the total absence of any adverse safety concerns shown EVCO is of the opinion that no new regulations are required at this time.

Should new data become available, or new regulations related to PABs be proposed, EVCO would be pleased to provide additional comments and input. EVCO has a significant amount of user experience with PABs and would be pleased to share this information with the MTO or any other interested parties.

Further comments on specific items in the MTO proposal are attached.

(Signed)

Juergen Weichert
President, Electric Vehicle Council of Ottawa
www.evco.ca

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Comments on specific areas of concern identified by MTO

Scope and intent of "pilot test"

The intent of the pilot project was to test the safe operation of PABs on Ontario roads. MTO states that some "styles" of electric bike or PAB do not meet this intent. This is a circular argument that is without merit. The intent was to test PABs thus *every PAB* that meets the definition *is* part of the original intent of the pilot test.

To state that there was no awareness that PABs come in different styles while those styles of PAB have been openly available for sale across Canada for many years is misleading at best.

Every electric bike that the MTO identified in the discussion document was a PAB and thus is eligible under the pilot project. To state otherwise is simply wrong. If a bike is a PAB (meets federal or Ontario definition) then it is allowed and has equal standing with all other PABs, despite appearances. The only definition of PAB that is relevant is that of specific performance and technical description (maximum speed and power, equipment, safety requirements) as specified in the federal or Ontario PAB definition.

Safety concerns

MTO has stated that some stakeholders have "certain safety concerns". Many of the "concerns" have really been questions that have not been adequately investigated or addressed by Ministry staff. Many have been related to the operation of PABs on off-road pathways which is outside of the domain of the MTO. Other concerns had more to do with semantics ("Do we call a PAB a bicycle or something else?") while others had more to do with style than safety. MTO has made little or no attempt to objectively measure and document the few legitimate safety concerns.

A few of these are discussed below along with an analysis of the "style" question.

Style

There is a concern that some PABs are of a style that is "not what we intended". PABs come in many different shapes and colours. Some even have plastic bodywork designed to alter their look for consumer acceptance. These styles develop from year to year much as is the practice in the auto industry.

A vibrant PAB industry should be expected to have bikes that change style over time. In addition, technological developments virtually ensure continual improvements in all components of bike design. Some are improvements in safety, handling, comfort and efficiency. Others are changes in appearance. All of these changes are within the natural evolution of the vehicle (within the current rigid PAB definition) and should be expected and embraced.

To try to regulate style or features is pointless, damaging to the industry, deprives consumers of choice

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and does not necessarily add to road safety.

Weight

There is currently no limit to the weight of bicycles in Ontario. In fact the empty vehicle weight has very little bearing on the total operating weight since rider and cargo loads are highly variable and are the major proportion of weight on any bicycle or PAB.

Weight in itself has little effect on safety. The common arguments are those of collisions with pedestrians and/or infrastructure. So far there have been few if any reported incidents of PABs striking pedestrians and no reports of damage to infrastructure by PABs. In all cases, impact by a PAB of any weight has far less potential for risk to vulnerable road users than an impact by a full size (currently legal and capable of high speeds) car or truck.

Speed of the vehicle has a much higher effect on braking performance than weight due to the effects on carried kinetic energy. PABs are limited to 32km/hr under motor power and are rarely operated above this speed. Conventional bicycles are not limited in speed and are thus capable of travel at 40km/h or higher when operated by a trained cyclist or a rider going down hill. It is entirely possible for a heavy rider on a conventional bicycle to carry higher kinetic energy than a rider on a PAB.

Concerns about weight are really concerns about stopping distance. These concerns are best met by standards for braking.

Braking

The empty weight of a lightweight vehicle like a bike has little effect on braking performance. The total loaded weight of a vehicle combined with its speed has to be considered.

Currently the braking performance standards for bicycles are virtually non-existent. Only one rear brake is required on "regular" bicycles and no objective (specific, measurable, enforceable) braking performance is specified.

Present Ontario legislation already has more stringent standards for braking for PABs than for bicycles. Front and rear brakes are required. Stopping distance is specified from a given speed. Most PABs currently available have vastly superior brakes compared to the current requirements for bicycles.

Given the current superior braking standards for PABs no additional changes to braking performance or weight limits are required. Excellent safety records for PABs and lack of any evidence to the contrary dictates that no changes or additional regulations should be made.

Dimensions

Any discussion of the "safety" of PABs due to size is totally misleading and irrelevant. A quick trip to any bike shop immediately shows that most PABs are virtually identical in length to conventional bikes and are indeed much shorter than any tandem bike, recumbent bike or bicycle with trailer combination.

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Width of a PAB is equally irrelevant. The maximum width of most bicycles is the width of the handlebars or of the shoulders or elbows of the rider. PABs are no different in width than any other bicycle. Other bike vehicles that are wider than PABS and are currently safely operated on Ontario roads include three-wheeled bicycles (trikes), child trailers, and any bicycle equipped with a mirror.

Bicyclists are advised by MTO and bicycle safety training organizations to travel no closer than 1m to the side of the road or curb. Safe driving practice further dictates a 1m minimum safety envelope on each side of any vehicle. Motor vehicle operators and driving instructors/students are familiar with the concept of a "safety zone" around the vehicle. In this regard any bicycle that is 2m long and 1m wide should be considered to take a space on the road total to its size plus 1m in each direction. Thus any "standard" bike is 3m wide and 4m long. A few centimetres extra for a slightly bigger bike makes little difference in the total dimension of this vehicle and safety zone.

Age

Initial pilot test discussions indicated a desire for a low age limit (if at all) for PAB riders. People of all ages can learn to ride a bike safely. There is a strong argument to be made to allow riders 14yrs or younger to have access to bicycles with electric assist. A young person learning to operate a vehicle on the roads is much safer learning road skills on a small, light vehicle like a bicycle or PAB before moving on to a full motor vehicle at age 16. Several years of road experience before learning to drive a car will only serve to make young drivers more aware and safe on the roads.

The minimum age of 16 for the pilot test was selected by the MTO despite stakeholder input. So far during the pilot test MTO has not obtained any data or operational evidence that the minimum age of 16 is appropriate. In fact there is no evidence at all to indicate that any age limit is required. In the absence of any evidence requiring a minimum age to operate any bicycle this restriction should be eliminated.

Wheel size and stability

Wheel size is not indicative of bike stability. Bicycle stability and handling characteristics depend on many inter-related factors that are part of good bike design. Many high-quality bikes are available that have small wheels and excellent handling and stability characteristics. These include folding bikes, recumbent bikes, BMX bikes, trikes and electric bikes. There is no reason to regulate wheel size for PABs.