


# CAPC

## Sustainability Working Group

### January 2008

Initiative	Action Plan Item	Lead	Timing	Status
ECO AUTO LEVY PROGRAM	1. Policies that increase the cost of purchasing new vehicles, retarding introduction of new cleaner technologies for the on-road fleet should be eliminated. Governments must take an integrated approach that would address accelerating the retirement of older more polluting vehicles, consumer maintenance education, advanced motive power plants and transmissions, building infrastructure for biofuels, cleaner fuels and advanced engine management technology.	FED	ST	



Addressed - Implementation underway and on-time.






Plans, commitments and timelines not clear - attention needed.











Immediate Attention




FED - Federal Government  
 PROV - Provincial Government  
 AUTO - Auto Manufacturers, Suppliers

MT – Medium Term  
 ST – Short Term  
 LT – Long Term

Initiative	Action Plan Item	Lead	Timing	Status
VEHICLE EMISSION REGULATIONS AND FUEL STANDARDS	1. <i>Avoid regulatory programs that are technology/marketplace forcing and that have a negative impact on the automotive industry in Canada.</i>	FED	MT	
	2. <i>California does not have a vehicle manufacturing industry to be concerned with. Emission Regulations proposed by "California" will not work, as they are technically and economically unfeasible. CAFÉ standards are set at the maximum amount that is technologically and economically feasible without compromising vehicle safety. Maintain national standards harmonized with the United States to ensure Canada is not disadvantaged as an investment destination.</i>	FED	MT	
	3. Several Provinces (Que, BC, Manitoba) intend to regulate to unachievable California standards. This will put manufacturers in a position of having multiple standards to achieve and restrict offerings in provinces with California type standards	PRO	ST	

Initiative	Action Plan Item	Lead	Timing	Status
VEHICLE EMISSION REGULATIONS AND FUEL STANDARDS	4. <i>Any proposed vehicle emission regulations must take into account previous work that has been done by vehicle assemblers under GHG MOU. Uphold current MOU on GHGs until its expiry in 2010 with a view to extending voluntary approach through “smart regulation” initiative</i>	FED	MT	
	5. <i>Government / industry have an obligation to ensure that national fuel standards exist that support advanced vehicle technologies, and that Government implement regulations to achieve appropriate National fuel quality for advanced technologies</i>	FED	LT	
ENERGY	1. <i>Electricity cost in Ontario is no longer competitive with many other automotive jurisdictions (costs have increased more than 46% since 2000). Ontario’s reliable supply at a reasonable cost is no longer a competitive advantage over competing North America automotive producing regions (i.e. Southeastern States). Avoid decisions that increase Ontario’s electricity costs</i>	PROV	ST	

Initiative	Action Plan Item	Lead	Timing	Status
ENERGY	<p>2. <i>Ontario should not exclude any one type of electricity generation in favour of another. All forms of generations have trade-offs that must be considered before developing new generation capacity or closing existing capacity. A complete cost analysis must be done on all generation options, to ensure that cost competitive, reliable and secure electricity is available for the automotive industry</i></p>	ONT	ST	
CONSUMER PROGRAM	<p>1. <i>Incentives for advanced fuel and advanced technology vehicles and advanced fuels</i></p> <p>2. <i>Increase support for alternative refueling infrastructure such as E85 and Biodiesel</i></p> <p>3. <i>Introduction of a national drive clean education program</i></p> <p>4. <i>Introduction of a national program to encourage the removal of older high polluting vehicles from the on-road fleet.</i></p>	<p>FED/PROV</p> <p>FED/PROV</p> <p>FED</p> <p>FED</p>	<p>ST</p> <p>MT/LT</p> <p>LT</p> <p>MT</p>	<p></p> <p></p> <p></p> <p></p>

Initiative	Action Plan Item	Lead	Timing	Status
WORLD LEADER IN MANUFACTURING	1. <i>Funding for demonstration programs and advanced technologies manufacturing</i>	FED/PROV	LT	
	2. <i>Support for energy-efficient choices in plant investments</i>	FED/PROV	MT	
	3. <i>Support for employee training for energy efficient choices</i>	FED/PROV	LT	

## **CAPC Sustainability WG – Top Four Priorities January 2008**

### **INITIATIVES**

#### **Introduction**

Set out below are the four most important issues related to the CAPC sustainability sub committee's focus. Within these issues are two important but very separate aspects. The first aspect is emissions that cause smog and is what Canadians have traditionally viewed as pollution that results in "bad air days". Auto contribution to smog emissions are from tailpipe precursors, volatile organic compounds, oxides of sulphur and oxides of nitrogen. The second and more recent focus of environmental concern relates to green houses gases (GHGs) emissions.

#### **Air Quality and SMOG**

Motor vehicles are no longer a major source of smog-related emissions. Since the 1970's smog-related emissions from new vehicles have been cut by over 99%. This started with the removal of lead from gasoline which allowed catalytic converters to function effectively over a prolonged period. Through various technical advances such as direct fuel injection, variable timing and improvements in the after treatment of the exhaust and related technologies, the latest Canadian government statistics are that all the cars and light duty trucks on the road in Canada today contribute approximately 9.5% of total Canadian smog-forming emissions. Incremental advancements continue to be made so that a pre 1988 vehicle pollutes 37 times more than a new vehicle and a pre 1994 vehicle pollutes 12 times more than a new vehicle. In result, advancements in catalytic converters and related technologies and the use of low sulphur fuels means that, new model vehicles are 10 times cleaner than the average on-road vehicle. New model vehicles today represent 8% of Canada's total on-road fleet but produce only 0.1% of total Canadian smog-forming emissions in any year. Since 2004, new vehicles in Canada must meet the most stringent national smog-related emissions standards in the world (U.S federal Tier 2 emissions standards).

Today, burning one cord of wood produces more smog-related emissions than driving a new SUV around the earth's circumference 35 times. In fact, cars and light duty trucks are one of the only Canadian sources of smog emissions that are forecast to significantly decline over the next decade.

#### **GHGs**

The most abundant GHG is water vapour, but that we cannot control. The next most abundant GHG is carbon dioxide. The amount of carbon dioxide produced is directly proportional to the amount of non-renewable fuel consumed. Greenhouse gas reduction has become both a societal and an industry priority. In 2005, Canada's auto industry was the only sector to sign an agreement with the federal government to reduce greenhouse gases from the car and light duty truck fleet by 5.3 million tonnes by 2010, with multiple interim targets and progress reports built into the agreement. Since the agreement was signed, the industry has introduced more than 70 new fuel saving technologies into Canada as companies compete to provide fuel efficient vehicles for consumers who seek to reduce fuel costs and lower GHG emissions. Technologies such as

cylinder deactivation, hybridization, clean diesel, improved transmissions, alternate fuel capability, light weight materials and many more changes have been made or are now widely available.

### **1) Auto related GHG and emission reductions - Clean Air Act Amendments to the 1982 MVFCA**

The GHG emissions generated by the vehicle fleet in Canada contribute 12.5% to Canada's total GHG emissions. In order to effectively reduce GHG emissions from the vehicle fleet, the committee wants to ensure that the focus of current federal policy is on reductions in the use of carbon-based, non renewable fuels. The current regulatory focus, introduced by the Clean Air Act Amendments to the 1982 MVFCA, targets only new vehicle fuel consumption. Since new vehicles only account for 1% of Canada's overall GHG emissions, it will take many years to have a significant impact on reducing GHG emissions from the vehicle fleet. The maximum benefit is achieved by improving the emission performance of the whole Canadian vehicle fleet (19 million vehicles), as opposed to just new vehicles (1.5 million per year). In addition, the oldest vehicles are less fuel efficient than new vehicles in like categories. By taking action which addresses the oldest vehicles greater results are obtain more quickly both in terms of air quality primarily and GHG emission reductions.

The amount of GHGs an individual driver creates is a product of kilometers driven, commuting habits (sole occupant, multiple occupants or transit use), driving habits (fast acceleration verses slow), road congestion and vehicle fuel efficiency. The auto industry is very concerned that a narrow focus only on new vehicle fuel efficiency limits many opportunities for emission reductions, and may lead to fewer model choices for consumers. The Canadian and U.S. auto sector has been fully integrated for the design, testing, certification, sourcing, production and sale of vehicles since the AutoPact of 1965. Consumers have enjoyed the economies of scale for the most advanced vehicle technology (emissions and safety) utilizing a market that is 12 times the size of the Canadian vehicle market alone. Disharmonization would directly impact parts makers and assemblers with manufacturing investments in Canada. It would also put at risk the related environmental, economic and safety benefits that flow from our harmonized North American automotive standards including "maximum feasible" recent U.S. enhancements to CAFE (Corporate Average Fuel Economy) standards and the significantly more stringent standards that have now been announced in the U.S. under its Energy Bill. The committee recognizes the need to develop awareness for the merits of harmonization that benefit the auto consumer in Canada.

### **2) Fuel standards – the need for and recommendations for a national approach to fuels standards and regulations in Canada**

Most of the significant advancements in reduction of vehicle based emissions have been the result of advancements of both fuel and vehicle technology and this will continue in the future. Many engine advances are only possible with certain fuel quality. As an example, the latest advances in clean diesel technology would not be possible without low sulphur diesel because the sulphur contaminant would quickly disable the exhaust treatment apparatus. Therefore, it is imperative to consider existing fuel quality (diesel and gasoline) and future fuel advancements in any objectives to further reduce vehicle emissions (both GHG and smog). Although a limited number of fuel properties in Canada are regulated (such as sulphur content), the vast majority of fuel properties are only specified by Canadian General Standards Board (CGSB) standards, which is only a voluntary guideline that may or may not be adopted by provincial regulation across Canada. Therefore, this allows for and results in a significant amount of fuels being sold in Canada that do not meet CGSB standards. As an example, while fuel detergency is regulated in the US, it is only

referenced in CGSB standards for Canada. It is estimated that some 18% of the fuel in Canada (largely independent retailers) do not meet CGSB detergency standards and some contain no detergency what so ever. This situation represents a serious issue for the effective operation of existing vehicle and emission control technology in the market as well as a potential barrier to further advancements in vehicle technology in Canada. Therefore, at a minimum, in order to ensure that all fuel in Canada meet the existing CGSB standards, compliance to these CGSB standards should be compulsory.

In addition to these existing challenges with gasoline requirements, more focus is required on establishing national renewable fuels standards in Canada for bio-diesel and ethanol.

### **3) Technology and fuels incentives - to support auto sector GHG and Smog emission reductions**

To facilitate introduction and use of advanced technology in vehicles and lower carbon content fuels (including a target of 5% renewable by 2010, 2% for diesel), the committee will provide recommendations for integrated approaches providing GHG reduction opportunities from the 12.5% of GHGs in Canada that are auto related.

Further recommendations will include but not be limited to technology and fuels incentives, government fleet procurement, public awareness / consumer education, fleet maintenance programs and consumer incentives for accelerated retirement projects for older vehicles that are less fuel efficient and have higher smog emissions. For older vehicle retirement the incentive should be proportional to the reduction in smog emissions.

### **4) EcoAuto Levy Program**

All parties of the CAPC sustainability working group agree that in the March 2007 Budget, the Federal Government introduced a number of programs in their Climate Change Program which affected the Auto Industry.

The Green Levy was stated to be the funding for the EcoAuto Rebate program as well as other initiatives which have yet to be implemented. If the EcoAuto Rebate program is not continued, it would be unconscionable to continue the Green Levy as its main purpose would have been eliminated. In addition, the Green Levy can not be justified on its own as there has been no discernible impact on sales of vehicles with the Green Levy imposed.

In effect, the Green Levy is simply a new \$50 million per year hidden tax on families and small business owners that legitimately require seating capacity, space and all-wheel-drive utility not available in smaller 'un-levied' vehicles. Green Levy fee rates have been established based on arbitrary fuel efficiency ratings that in some instances do not reflect full life cycle vehicle GHG emissions. Policies that increase the cost of purchasing new vehicles, retarding introduction of new cleaner technologies for the on-road fleet should be eliminated. Governments must take an integrated approach that would address accelerating the retirement of older more polluting vehicles, consumer maintenance education, advanced motive power plants and transmissions, building infrastructure for biofuels, cleaner fuels and advanced engine management technology. By using an integrated approach governments can allow the Canadian automotive sector to achieve sustainability for the environment, economy and society.