

Request for Proposal
for
Vehicle Exposure Study

**CANADIAN COUNCIL OF MOTOR TRANSPORT ADMINISTRATORS
(CCMTA)**

January 31, 2012

Interested bidders must access the
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REQUEST FOR PROPOSAL (“RFP”)

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Released by: The Canadian Council of Motor Transport Administrators (CCMTA)

RFP Issue Date:

[REDACTED]

RFP Closing Date:

[REDACTED] January 29, 2012

Send Responses to:

[REDACTED]
[REDACTED]
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1.0 Background

Canada's roads are among the safest in the world. Indeed, the number of fatalities and serious injuries resulting from motor vehicle collisions was the lowest ever recorded in 2009 (Transport Canada, 2011). However, these numbers may be influenced by differences in exposure to risk of a collision over time. While fatality, injury and collision rates based on exposure may be calculated by various means (e.g. fatality rates per licensed drivers, per registered vehicles, per population), these rates may, in some cases, be susceptible to significant bias. For example, comparing rates for teen drivers to those of adult drivers by using rates per licensed drivers does not take into account the fact that teen drivers are less likely to own a vehicle and may therefore actually drive less often. Similarly, a comparison of transport truck and passenger vehicle safety using a rate per registered vehicles cannot account for the typically greater distance traveled by long-haul commercial vehicles. Therefore, vehicle kilometres traveled (VKT) is considered to be the preferred measure of exposure to risk for the calculation of annual fatal and serious injury rates per billion VKT.

The Canadian Vehicle Survey (CVS) was conducted by Statistics Canada to provide VKT data for the years 2000-2009 based on a diary completed by drivers over the period of several days. However, the CVS was discontinued after 2009. Transport Canada has begun to develop and test a successor survey to the CVS, the Canadian Vehicle Usage Survey (CVUS), which will be based on electronic recording of VKT. However, results from the CVUS may not be available until 2014, leaving four years (2010-2013) for which there will not be any measure of VKT. This gap is particularly problematic since there are no fatal and serious injury rates per billion VKT for 2010, the last year of Road Safety Vision (RSV) 2010. Without such data, it will not be possible to determine if Canada has improved its ranking among member countries of the Organization for Economic Cooperation and Development in pursuit of the RSV vision of having the safest roads in the world. The lack of VKT data also means that there is no baseline measure of fatal and serious injury rates with which to compare the progress of the latest road safety program Road Safety Strategy 2015.

1.1 Objectives of the Project

The objective of this project is to develop estimation models for vehicle kilometres traveled in Canada. In particular, models estimating overall VKT and VKT by jurisdiction, age, gender, road type, and vehicle type and vehicle weight subgroups are required. The models will be developed using CVS data and correlates of VKT such as driver licensing and vehicle registration data, fuel prices, fuel sales, and economic indicators (e.g., GDP, household income, unemployment rate, Consumer Price Index, etc.). The latest CVS report can be found at: <http://www.statcan.gc.ca/pub/53-223-x/53-223-x2009000-eng.pdf>.

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Specifically, the models should estimate:

- 1) overall national VKT;
- 2) VKT for each province and territory;
- 3) VKT for various subgroups (i.e., age, gender, road type, vehicle type and weight) at the national level;
- 4) VKT for various subgroups at the provincial/territorial level where the data warrant it.

The consultant should provide estimates for 2010 using these models.

2.0 Overall Approach

To develop the VKT estimation model, several steps will need to be carried out. The description provided below is intended to provide a framework for conducting the research. CCMTA is seeking the insights of consultants on how best to achieve the research objectives.

It is anticipated that the cost of the project will be at most [REDACTED] and that it will take about six months to complete.

Consultants are expected to describe research plans that can realistically be accomplished within the constraints of the contract time and budget. Proposals must present the consultant's thinking in sufficient detail to demonstrate their understanding of the issues and the soundness of their approach to meeting the research objectives.

3.0 Project Tasks

The project will consist of the following tasks.

3.1 Task 1: Review of Relevant Literature

The consultant is expected to conduct a review of the statistical, economic, and transportation literatures, and other sources of information to determine available approaches for the estimation of vehicle kilometres traveled (VKT). The goal of the literature review is to obtain and review the most recent estimation techniques used by various countries including but not limited to Canada, the U.S., the UK, and Australia, that could be utilized in this project. The result of the review should be a methodology which is feasible for estimating VKT in Canada.

Deliverables: Synthesize the results of the literature review in a draft document in electronic format for review and comment by the CCMTA Project Manager and the Steering Committee. This report should indicate the feasibility of moving forward on Task 2 based on what has been done in the past in Canada or in other countries. Once approved, this draft document will be a part of the

final study report. The consultant will require approval from the CCMTA Project Manger to continue on to Task 2.

It should be noted that if the literature review indicates that the objectives of the study are unlikely to be met, CCMTA reserves the right to terminate the contract at the end of Task 1.

3.2 Task 2: Methodology and Data for Exposure Model

In order to accurately estimate the VKT within various subsets of driving activity in Canada, a theoretical model of VKT needs to be developed and then explanatory variables (e.g., number of licensed drivers, household income, unemployment rate, etc.) must be identified that are relevant to the theoretical model but also correlate with historical exposure data (i.e., CVS estimates) and are easily available from Statistics Canada or other reliable sources. The consultant is expected to provide a summary of how they plan to develop the theoretical model and then how they will evaluate the explanatory variables for suitability for the national, jurisdictional, and subgroup exposure estimation models. CCMTA will provide published CVS estimates and provincial/territorial vehicle registration and driver licensing aggregate data. These latter data must be treated as confidential. In order to obtain economic data such as GDP, fuel sales, household income, unemployment rate, etc., the consultant may need to purchase CANSIM data from Statistics Canada so the cost of acquiring these data should be included in the proposal.

Deliverables: Document in writing the theoretical model for estimating VKT and the suitability of each potential explanatory variable for each exposure model (i.e., national, national sub-groups, provincial/territorial, sub-groups at provincial/territorial level). This report will be submitted electronically upon completion and form a section in the final report. This report should indicate whether it is feasible to obtain sufficient data allowing for the estimation of VKT nationally, provincially/territorially, and for the subgroups identified above. This report will be reviewed and commented on by the CCMTA Project Manager and the Steering Committee.

The consultant will require approval from CCMTA to continue on to Task 3.

3.3 Task 3: Model and Software Tool Development

The consultant's proposal should outline in detail the steps that will be employed to develop the best possible estimates. The consultant should also describe their data-gathering process that will provide the information required to achieve the objectives of this study. The consultant should indicate what software they plan to use for the modeling (i.e., off-the-shelf or developed by consultant). In addition, to assess the accuracy of the estimation models, the consultant will be expected to document and present model validation techniques to ensure that models reproduce exposure estimates as accurately as possible (e.g., validating the models through back-casting over the period 2000-2009). The standard deviations or confidence intervals for these estimates should also be provided. The model should also be used by the consultant to estimate the VKT for 2010 for the various categories (i.e., national, sub-groups, etc.).

Deliverables: Submit a report on the development of the estimation model (in electronic format); present the results of the model validation and the code for the model and software tool to the CCMTA Project Manager and Steering Committee for review and comment. The consultant should indicate in their proposal what software they plan to use (i.e., off-the-shelf or custom-made). It should be possible for the software developed by the consultant to be used on desktop computers rather than require a mainframe computer. Approval from CCMTA is required to continue on to Task 4.

3.4 Task 4: Presentation of Estimation Model

The consultant is expected to organize a structured walk-through meeting to explain the estimation models for the national and jurisdictional levels and for the sub-groups and how they work to the research team at CCMTA in person in Ottawa or via a teleconference.

Deliverables: The consultant will submit an electronic format of a PowerPoint presentation describing how the estimation model works prior to the meeting. The consultant will work with the CCMTA project manager to organize a structured walk-through meeting as noted above.

3.5 Task 5: Prepare and Submit Final Methodology Report & Software Tool for Approval

At the conclusion of this project, the consultant will be required to submit a draft final report to the CCMTA for approval. The report should contain the results of the literature review, model development, and model validation results, and provide detailed instructions on how to use the software to estimate VKT nationally, provincially/territorially, and for each subgroup. It should also present the estimation results for 2010.

Deliverables: The consultant will submit an electronic format of the draft final report along with the software code for approval by the CCMTA Project Manager and the Steering Committee. The consultant will incorporate CCMTA's comments/revisions and submit the final report in both hard copy (five copies) and electronic format. The electronic model (software code, software itself if custom-made) will be provided to CCMTA in order for CCMTA to be able to estimate VKTs for future years, independently of the consultant. CCMTA will retain the intellectual property rights to the model.

4.0 Project Management

Consultants should address how they will ensure that they are adequately staffed to complete this study. Considerations should include but not necessarily be limited to the following:

- Project Manager with the necessary experience on a project of comparable scope and complexity.

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- Sufficient assigned staff with professional qualifications and/or experience to work on this project.

The consultant must provide a work plan that identifies the project manager and all staff members who will work on all key tasks associated with this assignment. The work plan must also outline how many days each individual will be allotted for their respective tasks. Consultants must also provide a quality control plan and should maintain their ability to execute this plan for the study. A timeline should be provided by the consultant indicating how long each task will take to complete as well as the overall length of the project.

The consultant must be prepared to meet with CCMTA staff as requested, to discuss the progress of the project. All raw data (hard copy and electronic), reports, supporting resources and documentation must be submitted to CCMTA when this project is completed. All charts, data, reports and documents provided by CCMTA shall remain the property of CCMTA and shall be returned to the CCMTA upon completion of the project.

We expect comprehensive proposals, detailing the bidder's understanding of the project scope and end product requirements and demonstrated level of awareness of the issues and challenges. While we do not prescribe specific formats, we will be looking at least for the following in each proposal:

- **LETTER OF TRANSMITTAL**

Each proposal must have a covering letter of transmittal, signed by the leader authorized to commit the team;

- **CORPORATE QUALIFICATIONS**

Provide details on the bidder's capacity to undertake the work and qualifications in the area of this subject matter. Examples of previous studies in the area will be helpful. Where a consortium is proposed, we need to understand clearly which firm is taking the overall lead, the legal relationship among the firms, and the role of each firm;

- **CONSULTANTS' RESUMES**

The consultant must identify who will lead the project, indicating their previous experience in such projects. A resume is required for the team leader. The resume should provide information on the team leader's experience;

- **REFERENCES**

Three references for the lead firm, and two for the team leader, together with each referrer's organizational affiliation, phone number and email contact must be provided. Provide context for each reference, identifying the situation for which the reference is being used.

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- **CONFLICTS OF INTEREST**

Declare within the proposal any and all real or apparent conflicts of interest or potential perceived conflicts of interest as part of the proposal and also promptly thereafter should such arise. Such declaration will be evaluated in context with further information requested as needed and may or may not disqualify a proposal dependant upon the circumstances.

There will be a CCMTA Project Steering Committee which will include a researcher from CCMTA, researchers from several jurisdictions, as well as the consultant's project leader.

The proponent will need to be flexible in working with the Steering Committee and be open to adjustment of timelines without penalty to the contractor.

5.0 Project Steering Committee

- The Project Steering Committee shall consist of the following:
 - CCMTA staff (including Project Manager);
 - Representatives of participating jurisdictions (i.e., Transport Canada, Ministry of Transportation of Ontario, Insurance Corporation of British Columbia).
- The consultant will report directly to the CCMTA Project Manager;
- The Steering Committee will serve as a technical advisory committee reviewing all materials and documents submitted by the selected consultant;
- Project status meetings will be held with the Project Steering Committee as required. Agendas and minutes will be prepared and distributed by the selected consultant for all project meetings. The agenda for project meetings shall be distributed at least one week prior to the scheduled meeting date. The Project Manager for the selected consultant shall attend all project status meetings and any additional meetings with the Steering Committee.

6.0 Monthly Updates, Interim Reports, Final Report and Presentations

The following updates, reports and presentations are required:

- Provide the CCMTA Project Manager with monthly update by e-mail outlining the study's progress to date.
- An interim progress report in respect of the deliverables for each of the tasks is to be submitted at the completion of each task.

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- The final report should be divided into three main sections, as follows:
 - 1) methodology to estimate exposure for Canada overall and for the various subgroups (i.e., Tasks 1-3);
 - 2) estimation of VKT for 2010 for national, jurisdictional and sub-groups using model;
 - 3) description of the software tool developed and detailed instructions on how this tool can be used by CCMTA or member jurisdictions to estimate exposure statistics in future years (Tasks 4-5).
- The final report must include an executive summary and must be prepared to CCMTA specifications. Five paper copies and a single electronic version of the final report should be provided. The electronic version should use the appropriate Microsoft (Word) software applications currently used at CCMTA.
- The consultant shall ensure that the study results are presented in a straightforward manner, for use by decision makers.
- Multiple drafts of the interim and final reports may be required before the report is approved.
- The software tool has to be developed, tested and presented to CCMTA.
- The selected consultant will be required to make a presentation of the final report to decision-makers at the CCMTA office, allowing for questions and possible updating of the report, if required.

7.0 References

Statistics Canada, Canadian Vehicle Survey: Annual 2009, Catalogue no. 53-223-X. 2010

Transport Canada and CCMTA, 2009 Canadian Motor Vehicle Traffic Collision Statistics, 2011.

8.0 Evaluation Criteria and Selection Method

Proposals will be evaluated according to the criteria contained in the Evaluation Criteria below. To be considered further for the cost element, a proposal shall

- (a) Achieve the specified minimum points for each group of criteria; and

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(b) Achieve the specified minimum overall score.

Proposals not meeting (a) or (b) above will be given no further consideration.

EVALUATION CRITERIA

The technical and management proposals will be evaluated and scored in accordance with the following evaluation criteria:

(A) Technical Proposal (maximum 550 points, minimum 440 points)

- 100 Points (a) understanding of scope and objectives;
- 300 Points (b) feasibility of approach and methodology;
- 100 Points (c) recognition of direct and indirect problems and solutions proposed;
- 50 Points (d) adequacy of work plan to meet required timeframes.

(B) Management Proposal (maximum 450 points, minimum 360 points)

- 100 Points (a) proposed management of the project and the qualifications and relevant experience of the Project Manager; adequacy of project management tools or methodology;
- 150 Points (b) key personnel capability - relevant experience, qualifications; competence proven by similar and/or related work;
- 100 Points (c) bidder's organization, including subcontractors, (if applicable) - relevant experience and competence proven by similar and/or related work, and resource capability;
- 100 Points (d) adequacy of level of effort and capacity of planned team organization, including availability of team members and backup capability, reporting structure, to carry out the project within the timeframe allotted.

TOTAL TECHNICAL AND MANAGEMENT PROPOSALS (A+B): 1000 POINTS

A proposal not achieving at least 80% or 800 points (out of 1,000) on the combined Technical and Management proposal criteria will not be assessed further.

(C) Cost Proposal (200 points)

The lowest cost proposal will get the maximum number of points and all others will be prorated as per the following formula:

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Lowest Cost Proposal/Bidder's Proposal x 200 points= Awarded points

The consultant should also provide the per diem costs for the team members.

(D) Selection of Successful Proposal

The proposal receiving the highest combined point rating score (i.e., technical proposal plus management proposal plus cost proposal) will be the successful bid.

Note: It is essential that the elements contained in your proposal be stated in a clear and concise manner. Bidders must ensure that their proposal provides sufficient evidence for the Client to assess the compliance of their proposal with the noted criteria.

Bidders may be asked to make a presentation of their proposal. CCMTA reserves the right to select a shortlist of proposals for this purpose.

Bidders will be notified of the success or failure of their submissions.

The expected schedule of events is as follows:

RFP issue date
Proposal submission date
Notification of successful consultant
Final report due



CCMTA retains the right to modify these dates if required.

CCMTA expects to award a consulting contract as a result of this Request for Proposal. If no acceptable proposal is received, in the sole discretion of CCMTA, then CCMTA reserves the right to not award any contract as a result of this RFP. The lowest of any bids will not necessarily be accepted.

9.0 Submission Requirements

Interested parties are invited to submit one (1) hard copy, and an electronic version of your complete proposal in Adobe PDF format to:

[REDACTED]ors
[REDACTED]
[REDACTED]

Proposals are due by 14:30 hours EDT on [REDACTED] at the address above.

Additional questions may be posed to [REDACTED] by [REDACTED] at the following contact points:

Phone: [REDACTED]
Fax: [REDACTED]
E-mail: [REDACTED]