

Workplan for BC Commute Trip Reduction program and expansions

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Consortium members (draft):

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Project Overview

- **Purpose:** This project will support the Province in achieving CleanBC climate targets by reducing unnecessary, unwanted and unhealthy transportation, focusing initially on orchestrating closer, greener and more active commutes. The approach and system can then be expanded to address freighting and delivery and travel by clientele (customers, students, patients, attendees, tourists, etc.).
- **Value proposition:** Government will require all large employers to report on “total annual employee commuting burden” and to make best efforts to allow and encourage closer, greener and more active commutes. Government will provide the toolkits and knowledge support for employers and employees to use any of a dozen proven tactics. Employers will not pay nor be subsidized to act. Studies indicate that employers will have net savings on productivity and human resources expenses and will experience improved productivity.
- **Development:** Our consortium has six years of research on this program behind us, including development and field testing of apps for employer use. We propose to continue to build the toolkits (apps, knowledge wiki, etc.) and develop the outreach and 24/7 support for a mandatory employee commute trip reduction (CTR) program for all medium and large employers in B.C.
- **Impact on carbon reduction:** a mandatory CTR program in Washington State was credited by WSDOT with reducing peak commuter traffic by 8%. With our thoroughly reimagined program, we expect over 10% reduction in B.C.’s transportation emissions within 3 years.
- **Co-benefits:** Long commuting is a major personal expense and time loss for everyone, and particularly for the working poor. Closer, greener, more active commutes will provide multiple co-benefits in mental and physical health, finance and quality of life to all workers and their families. Reducing traffic congestion should provide a \$100+ million boost to B.C.’s economy. Employers will see a boost in productivity and performance with lower costs for absenteeism, retention, recruiting, office space, parking and accidents.

- **Fit within CleanBC and existing legislation:** A report by the University of Victoria’s Environmental Law Centre recommends mandating participation by employers through regulation under the *Climate Change Accountability Act*.
- **Staged development and roll-out:** The first employers to participate will be public sector organizations (PSOs), as required by regulations under the *Climate Change Accountability Act*. The second stage will bring in all medium to large employers in other sectors, likely requiring an amendment to that *Act*. The third and fourth stages will roll out tactics to support all medium to large organizations’ efficiency in shipping and delivery and in clientele travel.
- **Timing:** The initial rollout to PSOs could happen within six months of contract agreement. The end of the second quarter of 2021 is quite doable. Subsequent stages could rollout at six-month intervals.
- **Must be mandatory:** US states with *voluntary* CTR have had negligible take-up by large employers. For example, the San Diego region has only 9 volunteers (partially participating) out of over 1,000 large employers. Compare to Seattle area: 100% mandatory participation => 8% reduction in peak congestion.
- **Science basis:** A comprehensive annotated bibliography of peer-review research has been compiled. International studies correlate long commutes (especially by SOV) with increased worker stress, unhappiness, sedentary living (lack of exercise) and obesity, diabetes and pollution exposure, leading to reduced productivity and job dissatisfaction, illness and absenteeism, fewer sleeping hours, more accidents, low social participation and trust, isolation, and more domestic conflicts, among other impacts. A paper on our own research to date is being peer-reviewed by the *Journal of Transportation Demand Management Research*.
- **Legal clearance:** A report by the Environmental Law Centre generally concludes this program could not be successfully challenged under Provincial and Federal privacy laws or the *Charter*.
- **U.N. Sustainable Development Goals:** this program supports Goals 11 (making cities inclusive, safe, resilient and sustainable, especially 11.2 and 11.6) and 13 (climate action).

Project Finance and Business Model

- **Finance Model:** The Province will underwrite the development of the toolkits/system and the ongoing employer support & updating. The budget will be ~\$3 million p.a. About 1/3 of this budget will underwrite free access by employers to data from Google Maps and other GPS traffic data vendors. The reduced commuting, congestion, pollution, GHGs, etc. will have benefits in the hundreds of millions, if not billions. For example, conservative projections for less personal spending on vehicle ownership, fuel and maintenance could see >\$100 million less leaving the provincial economy annually.
- **No subsidies:** Most jurisdictions with CTR programs provide a financial subsidy for one specific employer action; unfortunately this pulls attention away from other viable tactics. We recommend *no subsidies* – instead our core app’s technology will make customized cost/benefit analyses of the various tactics. We will provide employers with a complete implementation toolkit for all tactics.
- **PSO infrastructure funding:** key informants in the public school system have recommended there be some funds available for infrastructure costs (such as for bike and ebike secure parking, EV and ebike charging, etc.)
- **Innovation:** No other jurisdiction has a 21st century implementation of CTR. Our program design is elegant, inexpensive and efficient, and could begin implementation within 6 months.
- **Context within CleanBC, Integrated Transportation & Development Strategy, municipal development, public health and #buildingbackbetter economic strategies:** This program works synergistically with all climate change, transportation, development and other strategies in place and contemplated. Recruiting all large employers to address unnecessary, unwanted and unhealthy commuting (and then experiencing lower HR costs and improved productivity) will establish trusted channels and contacts for promoting other strategies across much of the workforce.
- **Technology:** Agile development, industry-standard commercial or open-source tech, apps (web-based and downloadable macro-enabled spreadsheets) with APIs to Google Maps and other traffic GIS data vendors, knowledge wiki of moderated crowdsourced best practices info and resources, explainer videos, top security and backup, etc.

Milestones and Deliverables

(Timeline presumes 2021-01-15 approval of contract)

Milestone #	Milestone/Deliverable name	Scope of work	Completion date
0	Contract is agreed	Agreeing on contract specs, payment of deposit	2021-01-15
1a	System design is refined	JAD and requirements mapping	2021-01-30
1b	R&D capacity is ramped up	Recruit researchers & developers & video talent	2021-02-15
2a	Agreement on GIS traffic info	Negotiate (along with Min. of Finance rep) with Google Maps and other GIS traffic vendors for bulk pricing	2021-02-28
2b	Wiki created and seeded	Set up secure, moderated wiki; Research seed info for 12 tactics; Recruit moderators	2021-04-30
3a	Explainer videos (and communications videos)	Produce explainer videos for each tactic. Produce additional video material for Government Communications use	2021-05-30
3b	Central xlsx app	Refine our xlsx app	2021-03-01
3c	Communications plan for rollout to PSOs	Complete a communications plan with Government Communications. Provide text and visual materials.	2021-04-30
4a	Web-based central app version developed	Develop and test a secure web-based version of the central app	2021-05-01
4b	Additional xlsx apps for specific tactics developed	Develop standalone xlsx analytical apps for specific tactics	2021-06-01
4c	Website and reporting portal completed	Develop SaaS-style website to provide 24/7 support for employers. Develop portal for employer reporting of burden and best efforts.	2021-08-30
5	Launch for PSOs, employer support after launch	Launch and provide ongoing support to employers.	TBD
6	Research, evaluation, evolved system	Gather industry/sector data to establish GHG progress indicators and benchmarks. Refine apps through feedback. Encourage hits & misses	TBD

		reporting to wiki by practitioners.	
7	Communications plan for other sectors	Develop plan and materials for Government Communications for rollout to other sectors	TBD
8a	System, apps and toolkit to expand program for Shipping & Delivery	Develop program for efficiency in shipping and delivery	TBD
8b	System, apps and toolkit to expand program for clientele travel	Develop program for efficiency in shipping and delivery	TBD
8c	Translation	Translation of toolkit to other languages	

Budget overview

Annual budget..... ~\$3,000,000

First and subsequent years breakdown

First year, first six months for research, development,
support, reporting, refinement..... \$1,500,000 payable to TCG Ltd.
[*\$500,000 as retainer, due on signing contract*]

First year, second six months \$1,000,000 payable to TCG Ltd.
.....~\$500,000 payable to Google Maps and other data vendors

Second and subsequent years\$2,000,000 to TCG Ltd.
..... ~\$1,000,000 to Google & data vendors

Note: the expense for purchasing data from Google Maps may be impacted by previous Google-BC agreements dating back to Google's acquisition of BC's TRIM and other resource mapping data. Google has the most complete traffic dataset, including multiple modes. Other vendors are much less expensive (1/10th in some cases) for some data but do not cover all modes of travel (transit, walking, cycling, etc.) or historical data. We will investigate using API calls from the apps to multiple vendors to reduce cost provided this does not noticeably impair user experience.

Note2: some public school administrators have advised there be funding available for CTR-related infrastructure costs.