
Comments on (163-page CTP draft: http://bit.ly/1O0I2ZP)


To: ctp2040@dot.ca.gov, From: Cities21, Date: April 17, 2015.

## Preamble

Unique in the US, CTP 2040 (Alternative 3) offers a more realistic "eat your spinach, it's good for you" approach to reducing transport GHG. Other US locations follow the less realistic "hot fudge sundae diet" approach, making hard-to-believe promises of painless GHG reduction. Specifically, CTP introduces a 75% increase in vehicle operating costs (from $0.22 per mile, comprised mostly of gas costs @ 24.6 mpg fuel economy) to change behavior, reducing VMT/GHG by 17.3%. This is the boldest policy to change travel behavior ever broached by a state.

Higher occupancy inside vehicles is envisioned, with all HOV2 freeway lanes converting to HOV3 and HOV4, and some "general purpose" freeway lanes converting to HOV. A doubling of transit is envisioned, but the plan "hand waves" about financing such an effort (a looming challenge). Cities21 encourages both a) cost-effective transit expansion and b) increasing ridership on existing transit routes, while simultaneously increasing other cost-effective green travel alternatives.

States the CTP draft (page 90), "Road capacity enhancing strategies were rejected due to concerns these would ultimately increase VMT." Comments advocacy watchdog Transdef, "Ending highway widening will be a major shock to the contractor/local government/CMA/MPO/CTC/Legislature ecosystem."

CTP provides a mathematically-believable, quantified policy model that reduces transport GHG emissions to 20% of 1990 by 2040, but CTP does not discuss the political viability of the proposed policies. Political viability of "eat your spinach" will be a major challenge. 75% of California voters polled opposed small amounts of spinach-eating (see: http://www.cities21.org/dpwg/25centGasTaxIncrease.jpg), let alone the 17X larger portion envisioned. CTP Figure 6 on Page 68 also shows that "price" is the number one transport issue.

CTP 2040 exists within a public policymaking framework where political viability is important. A public policy analysis should be included in the report. The report should include a "success narrative" where the CTP document attempts to make a persuasive case that a phased implementation of Alternative 3 policies will succeed. An expert, adversarial audience should critique the persuasiveness of the argument and then the CTP should be revised accordingly to be more politically-believable and viable. To achieve these 2050 GHG transport reduction goals, a lengthy public persuasion campaign will be necessary.

An economically regressive statewide transport sales tax is also envisioned to help fund road maintenance.

## Page 91, Table 17, "CTP 2040 VMT Reduction Transportation Strategies Matrix"

Table 1 (Page 6) scores policies on social equity and Table 17 should do the same.

Table 17 should score pricing policies based on six criteria: GHG reduction, congestion reduction, cost-effectiveness, political viability, social equity, and ease of implementation. It is apparent that some items in the basket of policies score low on political viability and social equity.

Please study more pricing policies: there are 14 {parking pricing, VMT charage, gas price increase, carrot/stick combinations, pay as you drive auto insurance, etc}. It may be submoptimal to focus solely on "road user charge" when there may be other, more-politically-palatable policies. Details on a more robust pricing analysis:

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| Research: Rank 14 congestion pricing strategies | Rank congestion pricing policies: gas tax increase, parking charges, PAYD, cordon pricing, VMT fee, etc on {GHG reduction, congestion reduction, cost-effectiveness, social justice, ease of implementation}. Better inform policy making. | Details: http://bit.ly/1MYZ7NZ |

Two examples of pricing policies that score higher on the six criteria than CTP's road user charge:

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|---|---|---|---|
| Mobility as a Service + Workplace Parking Revenue-Neutral Feebate | 5M tons - Year 13 | 36-month project followed by a 5-year phase-in to reduce Bay Area commute VMT by 23% by 2022. Copying Stanford U trip reduction, $2/day SOV commute parking charge funds incentives. Measurably increase mobility, convenience, and productivity while reducing stress, congestion, and GHG. Make it more convenient for anyone, anywhere, at any time, to have a competitive option to driving alone. To sustain regional economic competitiveness, provide reliable 40-minute peak hour San Francisco to Silicon Valley commute travel time. | Details: http://bit.ly/1MUIoNy |

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|---|---|---|---|
| Pay-As-You-Drive Auto Insurance | 1.8M tons - Year 8 | Prop 103-compatible PAYD auto insurance. Drivers who drive less save money, equivalent behavior change as a $0.70/gal gas tax increase. Revenue-Neutral Feebate incentivizes shift from inefficient auto insurance to PAYD. DOI designates "modest flavor" products for rebate. Initial $10 fee on inefficient products yields $133 rebate. Use a third party financial clearing house to avoid Prop 26 supermajority requirement. | Details: http://bit.ly/1LG5U3z |

As California's Cap and Trade carbon price is applied to transportation fuels, the operating cost of driving increases, dampening demand and reducing VMT. CTP should comprehend Cap and Trade's VMT reduction. For example, the high case of Synapse's November 2013 Carbon Dioxide Price Forecast (http://www.synapse-energy.com/sites/default/files/SynapseReport.2014-05.0.CO2-Price-Report-Spring-2014.14-039.pdf ) would reduce 2040 VMT by 4%:

| | 2020 | 2040 | 2040 VMT |
|---|---|---|---|
| Low case | $10/ton | $40/ton | -1.8% |
| Mid case | $15/ton | $60/ton | -2.7% |
| High case | $25/ton | $90/ton | -4.05% |

A $40/ton carbon price translates into roughly a $0.40gal gas price increase. Sweden's current carbon price of $168/ton would have a very significant VMT reduction in California.

## Page 96, Alternatives Equity Analysis

Please consider providing a more traditional interpretation of social/economic equity. A disproportionate percent of low-income household budget goes to transport, therefore increases in transport costs have a disproportionate impact and are economically regressive.

Table 19 should be interpreted as an attempt to argue that a 75% driving operation price increase will be slightly less regressive than it might appear on the surface. The 75% price increase will still be very regressive by traditional social equity definitions.

Please also note the overall complexity of worldwide social equity analysis. 1B affluent humans, including Californians, overproduce GHG creating future harm to 6B less-affluent, lower-emitting humans. Hence pricing policies that are economically regressive on Californians may still be economically progressive for humanity on the whole.

## ZEVs (zero emission vehicles) covered on pages 81, 112, 125, and 156

The CTP vision for 20M ZEVs by 2050 via the 2013 ZEV Action Plan and more ZEV incentives is not sufficiently thorough or believable. Please provide a discussion of a) a year by year forecast of product evolution that will make ZEVs more enticing to consumers (longer battery range, price reductions, etc), b) specific policies to accelerate ZEV market adoption, such as a revenue-neutral ICE to ZEV feebate. For example:

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| ICE to EV Revenue-Neutral Feebate | 61M tons - Year 15 | In Year 1 with only 1.3% EV market share, a $40 fee per each ICE new car sale provides a $3,000 rebate for each new EV purchase. As EV market share increases, the ICE fee increases. Use a third party financial clearing house to avoid Prop 26 supermajority requirement. | Details: http://bit.ly/1C0m2W0 |

## Autonomous Vehicles mentioned on pages 31 and 110

"Induced demand" impacts of autonomous vehicles on freeways are conceptually understood by many transport planners. CTP should provide an analysis of the expected VMT/GHG increase from autonomous vehicles. Without this, the CTP draft understates VMT. An appropriate research project might be:

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| Research: Robocar Induced Demand | | Proposed is an activity-based or four-step regional travel demand forecast for 5% market penetration of "read-a-magazine freeway robocars." Improved robocar commuting productivity drops the model's internal cost of such trips to $0. If forecast predicts increased VMT/GHG (multiple studies indicate this will occur), undertake policy research for mitigations. | Details: http://bit.ly/1FSngFM |

## HSR mentioned on pages 11, 63, 91, 93, 98

Even with hostile federal budgeting, Gov Brown has single-handedly kept HSR alive. But what happens with a new Governor and new priorities? Should a lower-cost "HSR Plan B" be developed, emphasizing innovative, low-cost, California-grown technologies? These technologies could provide faster travel times and could more readily support the CTP strategy for reduced HSR fares to attract higher ridership.

A "HSR Plan B" might invest $1B across a few new technologies that offer to deliver the same or better performance for $20B, rather than the projected $80B HSR capital cost using decades-old technology. It might also be advisable to accelerate last-mile / circulator transit breakthrough technology, to further increase ridership.

Even with Gov Brown's heroic efforts, one anonymous Caltrans staffer comments, "there is enough money to build a berm to nowhere in the Central Valley, but there isn't any money to actually put in rails." The draft CTP should consider a scenario where full HSR funding does not arise.

## Page 9 and 85, SCS (SB375 sustainable communities strategy) and Land use

Smart growth best practices only reduce VMT/GHG by a small amount. CTP should pursue smarter smart growth innovations that can provide a larger impact, for example:

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| High to Low VMT New Home Revenue-Neutral Feebate | 600K tons - Year 10 | 120K high VMT, inefficient homes are built per year. A 1% fee on inefficient home sale price ($400K CA median price) yields $480M/year. This funds leveraged parcel acquisition for green, affordable, dense, low VMT housing. Yields total of 6K new green + avoided inefficient homes per year. Use a third party financial clearing house to avoid Prop 26 supermajority requirement. | Details: http://bit.ly/1FOQXHj |

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| Low-Impact, Low-Commute Microunit Housing, GR200 zoning | 1M tons - Year 10 | Micro-apartments. 66% less driving and 75% less GHG than suburban. 9 VMT/day/capita. Own fewer cars. Increase transit. Zipcar, transit pass, unbundled parking, EV charging, green commute housing preference. Affordable by design without subsidy. Build 10K micro-homes per year. | Details: http://bit.ly/1GDYbMT |