

CLIMATE CHANGE ELEMENTS UNDER CONSIDERATION BY TPB

Transportation-sector greenhouse gas reduction goals and strategies

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Climate Change: Recent TPB Actions

- 2020: Endorsed new regional, multi-sector GHG goal for 2030
- 2020: Added on-road GHG reduction as a priority in solicitation for Visualize 2045 update
- 2021: Initiated Climate Change Mitigation Study to ID and analyze on-road GHG reduction strategies
- 2022:
 - Survey of TPB members re: on-road GHG reduction goals and strategies
 - Work sessions of the board to discuss GHG reduction goals and strategies
 - Considering adopting on-road GHG reduction goals and strategies as part of long-range transportation plans



Climate Change Elements TPB Considering

- Goals to reduce Greenhouse Gas - specifically for on-road transportation sector.
 - Region already has non-sector specific GHG reduction goals
 - TPB has endorsed these regional multi-sectoral goals
- Adopt on-road GHG reduction strategies as priorities for regional long-range transportation plans
- Affirm on-road GHG reduction strategies to be explored further for future considerations



GHG Reduction Goals - Clarified

- Regional Goals: 50% below 2005 by 2030; 80% below 2005 by 2050
- COG's Regional goals are multi-sector:
 - Energy Grid
 - Energy Usage in buildings (Residential, Commercial and Industrial)
 - Transportation (On-road, Aviation, Commuter Rail, Marine, Off-road)
 - Waste
 - Other (Agriculture, Fugitive)
- COG has not established GHG reduction goals for individual sectors.
- TPB is voluntarily considering adopting GHG reduction goals for on-road sector
- 2030 Climate and Energy Action Plan (CEAP) identifies strategies for each sector with assumed levels of implementation.
 - If each sector fully implements all the strategies, region would achieve the 2030 GHG reduction goal
 - Estimated contribution from the transportation strategies would be a 32% reduction in transportation-sector GHG emissions







On-road GHG Reduction Goals: Consideration

- Option A: 50% below 2005 by 2030 and 80% below 2005 by 2050
 - Above/Beyond regional multi-sector 2030 CEAP
 - No identified pathway to attain 2030 goal.
- Option B: 32% below 2005 by 2030 and 80% below 2005 by 2050
 - As assumed in regional multi-sector 2030 Climate and Energy Action Plan
 - Pathway to attainment identified (CCMS scenarios Combo 2, 3 and 4) - YET Some of strategies required not ready for adoption at this time;
 - Other strategies require unprecedented levels of implementation.
- Option C: 23% below 2005 by 2030 and 80% below 2005 by 2050
 - Less than assumed in regional multi-sector 2030 CEAP.
 - Pathway to attainment identified (CCMS scenario Combo 6)
 - All required strategies ready to be adopted at this time
 - Implementation levels of strategies aggressive yet doable.



GHG Reduction Strategies: Consider adopting



No.	GHG Reduction Strategy	High-end of CCMS Scenarios (COMBO.6)	More Modest Level (COMBO.5)
1 (C9)	Improve walk/bike access to all TPB identified high-capacity transit stations	50% increase in bicycle access trips	25% increase in bicycle access trips
2 (C10)	Increase Walk/Bike mode of travel - Complete the TPB's National Capital Trail Network	Unbuilt portion of the NCTN (55%) would be completed by 2030	Same as COMBO.6. 
3 (C14)	Transportation System Management & Operations (TSMO) improvement measures at all eligible locations.	Both TSMO and some level of connected and automated vehicles (CAVs) by 2050	TSMO, but without CAV contributions in 2050
4 (C2)	Develop an electric vehicle charging network	Considered part of "C1," so not quantified separately	Same as COMBO.6. 
5 (C1)	Convert vehicles to clean fuels.	<ul style="list-style-type: none"> 100% of new light duty vehicles sold; 50% of new medium/heavy duty trucks sold; 100% of all buses <u>on the road</u> 	<ul style="list-style-type: none"> 50% of new light duty vehicles sold; 30% of new medium/heavy duty trucks sold; 50% of all buses <u>on the road</u>
6 (C3)	Add additional housing units near TPB-identified high-capacity transit stations and in COG's Regional Activity Centers.	+77,000 by 2030 and +126,000 by 2050 compared to amounts in COG Cooperative Forecasts Round 9.1a	Same as COMBO.6.
7 (C8)	Reduce travel times on all public transportation bus services.	15% by 2030 and 30% by 2050 (relative to 2020 travel times)	10% by 2030 and 20% by 2050 (relative to 2020 travel times) 



GHG Reduction Strategies: Explore further

Ref.	Description of Goals / GHG Reduction Strategy
1	C4a. Take action to shift growth in jobs and housing from locations currently forecast (COG Cooperative Forecasts) to locations near TPB-identified high-capacity transit stations and in COG's Regional Activity Centers, <u>within jurisdictional</u> boundaries, to improve the jobs-housing balance locally.
2	C 5. Make all public bus transportation in the region fare-free by 2030.
3	C6. Make all public rail transportation in the region fare-free by 2030.
4	C7. Price workplace parking for employees. In 2030, prices in Activity Centers would vary between \$12-\$14/day. In 2050, prices in Activity Centers would vary between \$12-\$14/day and be approximately \$6/day outside of Activity Centers. (2020 dollars to be adjusted for inflation)
5	C11. Convert a higher proportion of daily work trips to telework. By 2030, convert 25 percent of daily work trips and by 2050 convert 40 percent of work trips to telework.
6	C12. Charge a new fee per vehicle mile of travel (VMT) by motorized, private, passenger vehicles in addition to the prevailing transportation fees and fuel taxes. In 2030, the fee would be 5 cents/mile and in 2050, the fee would be 10 cents/mile
7	C13. Charge a “cordon fee” of \$10 per motorized vehicle trip for all vehicles entering Activity Centers in the core of the District of Columbia, by 2030.



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