National Capital Region
Transportation Planning Board

TPB Technical Committee
February 4, 2022
Item 7

MEMORANDUM

TO: National Capital Region Transportation Planning Board

FROM: Kanti Srikanth, TPB Staff Director

SUBJECT: Process to Solicit Member Input on Climate Change Mitigation Goals and Strategies

DATE: February 4, 2022 DRAFT FOR TECHNICAL COMMITTEE

The Metropolitan Washington Council of Governments (COG) has adopted, and the National Capital Region Transportation Planning Board (TPB) has endorsed, a set of multi-sector greenhouse gas (GHG) reduction goals for the metropolitan Washington region for the years 2030 and 2050. Sectors include energy, built environment (e.g., residential and commercial building energy), transportation, agriculture, and waste. The National Capital Region Transportation Planning Board (TPB) intends to integrate climate change mitigation planning elements into its long-range transportation plan (LRTP), Visualize 2045, and the associated planning process. A description of this task, its associated principles, and the process proposed to complete the task were outlined in a memorandum, shared with the TPB on January 19, from the Chair and Vice Chairs of the TPB (attached).

Below, this memorandum describes the process by which TPB member jurisdictions and transportation agencies would provide input prior to the TPB's discussion and action on the matter.

BACKGROUND

The TPB has agreed that reducing GHG emissions in the surface transportation sector to mitigate the impacts of climate change should be a regional planning priority along with other regional planning priorities previously adopted and documented in TPB policy documents.[1] Surface transportation is defined as transportation occurring on roads (e.g., cars, trucks, and buses) and/or rail (e.g., Metrorail and commuter rail). The TPB is committed to this task. To formalize this commitment, the TPB is considering adopting:

1. Greenhouse gas (GHG) reduction goals explicitly for the surface transportation sector (on-road vehicles including public transportation rail), commensurate with the region's multi-sectoral GHG reduction goals,[2] and
2. A set of multi-modal, multi-pathway strategies (projects, programs, and policies) with the potential to reduce surface transportation GHG emissions as part of its planning priorities.

The purpose of including the surface transportation GHG reduction goals and a set of multi-pathway strategies in both the LRTP and the associated planning process is to help guide transportation investment decisions of TPB member jurisdictions and transportation agencies in the coming years, particularly on projects, programs, and policies that would be included in the TPB's LRTP.

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[1] Documents describing TPB policy priorities may be found at: "Goals and Future Factors - TPB Visualize 2045," 2022. https://visualize2045.org/goals-and-future-factors/.

[2] The region's multi-sector GHG reduction goals adopted by COG in 2008 and 2020: Reduce GHG emissions, relative to 2005 levels: 10% by 2012, 20% by 2020, 50% by 2030, and 80% by 2050.

ADDITIONAL INFORMATION

The metropolitan Washington region adopted its first set of GHG reduction goals in November 2008 (for years 2012, 2020 and 2050) based on the Metropolitan Washington Council of Governments' (COG's) *National Capital Region Climate Change Report*. The COG Board of Directors (COG Board) adopted an interim 2030 goal at the recommendation of its Climate, Energy, and Environment Policy Committee (CEEPC) in October 2020.[3] The TPB endorsed the 2030 goal, also in October 2020.[4] Many COG members have adopted similar GHG reduction goals for their jurisdictions.

The regional goals adopted by COG and endorsed by the TPB are multi-sectoral, as are many of the GHG reduction goals adopted by COG member jurisdictions, including the District of Columbia, as well as the State of Maryland and Commonwealth of Virginia. Thus, the specific levels of GHG reduction articulated in the COG goal would be derived from the combined actions in the various sectors contributing to GHG emissions, such as the energy, built environment, transportation, agriculture, and waste sectors. By adopting a surface transportation sector (cars, trucks, and buses and rail, e.g., Metrorail and commuter rail) goal, the TPB will be advancing its previous endorsements of regional GHG reduction goals and taking ownership of its ability to contribute to GHG emissions reductions within the surface transportation sector through its long-range transportation planning process. Such a goal would also provide a target to compare the LRTP's estimated GHG reductions against the sector-specific goals.

Studies by the TPB and others have made clear that effective mitigation of the adverse impacts of climate change requires a comprehensive set of actions at all levels – federal, state, regional and local. As a regional planning body, the TPB is well positioned to inform project- and program-level decisions and policy enactment on the types of actions that would reduce surface transportation GHG emissions. The TPB can inform state, regional, and local decision making by adopting a comprehensive (multi-pathway, multi-modal) set of transportation GHG reduction strategies. The TPB's Climate Change Mitigation Study (CCMS), completed in early 2022,[5] examined the GHG reduction potential of many individual strategies (projects, programs, policies) and scenarios that combined various strategies.

The strategies examined by the CCMS were multi-modal and included land use, which is closely linked with surface transportation. The study analyzed strategies, grouped into three pathways, to reduce surface transportation GHG emissions: Fleet Conversion, Reducing Vehicular Travel, and Traffic Operations. Many of the strategies were built upon actions (projects, programs, policies) that TPB members are already implementing, but the study generally assumed a much higher level of implementation. Other strategies involved enacting new policies, some requiring state-level legislation, that would provide for potentially substantial reductions in vehicle travel.

A deliberative and collaborative examination of all strategies will help the TPB determine those which it can adopt as regional climate change mitigation planning priorities at this time. This set of regional, multi-modal, multi-pathway GHG reducing strategies adopted by the TPB would serve to

[3] "Resolution Endorsing Regional Climate Mitigation and Resiliency Goals (COG R45-2020,Ocotber 14, 2020).
[4] "Resolution on the Metropolitan Washington Council of Governments' Regional Multi-Sector Interim Goals for Reducing Greenhouse Gases (TPB R8-2021, October 21, 2020).
[5] ICF, Fehr & Peers, and Gallop Corporation, "TPB Climate Change Mitigation Study of 2021: Scenario Analysis Findings," Final Report .

inform the transportation project- and program-level decisions and policy considerations of its member jurisdictions and agencies. The TPB believes that transportation-related decisions that advance the adopted strategies will reduce surface transportation sector GHG emissions, even if only a subset of such projects, programs, and policies are explicitly listed in the TPB's LRTP.

MEMBER INPUT SOLICITATION

Staff will survey every member of the TPB (jurisdictions and transportation agencies) to obtain input on the two climate change elements that are being proposed to be added to the LRTP and the TPB's planning process: (1) TPB adopting surface transportation sector-specific GHG reduction goals; and (2) TPB adopting a specific set of surface transportation GHG reduction strategies (projects, programs, and policies) as part of its planning priorities.

Each member will receive a multiple-choice questionnaire and is strongly encouraged to provide additional comments. The survey will be conducted using a web-based format. Members will be given a sufficient amount of time to discuss the matter with their governing entities before submitting their responses, which should be reflective of the jurisdiction or transportation agency they represent on the TPB. A draft of the questionnaire is attached.

Staff will compile the survey results, which will then be used to develop draft surface transportation GHG reduction goals that the TPB will consider adopting along with a draft set of multimodal, multi-pathway GHG reduction strategies the TPB would consider adopting as planning priorities.

The board will be briefed on the aggregate results of the survey and will review the draft GHG reduction goals and strategies in a work session. Individual jurisdiction or agency responses will not be published. Members of the board would also discuss and decide on changes to the staff draft before voting to adopt GHG reduction goals and strategies for inclusion in the TPB's LRTP and its associated planning process.

NEXT STEPS SCHEDULE

- TPB reviews draft questionnaire – February 16, 2022
- TPB comments on draft questionnaire - February 21, 2022
- Distribution of link to web-based questionnaire – February 24, 2022
- Responses to questionnaire due – April 7, 2022 (6 weeks)
- TPB Work session, April 20, 2022 – Review/Discuss Draft Climate Change priorities to adopt
- TPB Meeting, April 20, 2022 – Announce proposed on-road GHG reduction goals & strategies
- Adopt on-road GHG reduction goals & strategies – May 18, 2022

Name:
Jurisdiction/Agency:

A. Surface Transportation Greenhouse Gas Reduction Goals

The Metropolitan Washington Council of Governments (COG) has adopted, and the National Capital Region Transportation Planning Board (TPB) has endorsed, a set of multi-sector greenhouse gas (GHG) reduction goals for the metropolitan Washington region for the years 2030 and 2050. Sectors include energy, built environment (residential and commercial building energy), transportation, agriculture, and waste. Transportation includes on-road, off-road (such as farm and construction vehicles), and nonroad, such as rail, marine, and air. Surface transportation is defined as transportation occurring on roads (e.g., cars, trucks, and buses) and/or rail (e.g., Metrorail and commuter rail).

The TPB is committed to reducing GHG emissions in the surface transportation sector. To formalize this commitment, the TPB is considering adopting GHG reduction goals for the surface transportation sector, commensurate with the region's multi-sector goals - 50% below 2005 levels by 2030 and 80% below 2005 levels by 2050. The TPB's climate change mitigation goals would complement its other planning priorities such as improving safety, mobility, accessibility, and equity.

The TPB wishes to obtain input from each member jurisdiction/agency on adopting surface transportation sector specific GHG goals. As such, the TPB is requesting its primary member (or alternate member if the jurisdiction's primary member position is vacant) to complete the following questionnaire on behalf of the jurisdiction (Note: responses should reflect the general view of the jurisdiction's/agency's governing entity). For each question please choose all responses that apply.

Q1. Does your jurisdiction/agency have overall MULTI-sector GHG reduction goals?

My jurisdiction/agency:

- o has multi-sector GHG reduction goals.
- o is considering adopting multi-sector GHG reduction goals.
- o will consider adopting multi-sector GHG reduction goals.
- o has endorsed the COG.

Comment:

Q2. Does your jurisdiction/agency support the TPB formally adopting COG's 2030 and 2050 GHG reduction goals (listed in the beginning of this survey) for the surface transportation sector?

The TPB:

- o should adopt the COG's 2030 and 2050 GHG reduction goals for the surface transportation sector.
- o should undertake a comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

Comment:

Q3. Does your jurisdiction/agency have specific GHG reduction goals for the SURFACE TRANSPORTATION sector?

My jurisdiction/agency:

- o has transportation sector specific GHG reduction goals.
- o is considering adopting reduction goals just for the surface transportation sector.
- o will consider adopting transportation sector specific GHG reduction goals.
- o will endorse TPB's transportation sector specific GHG reduction goals.

Comment:

B. Consideration of Greenhouse Gas Reduction in Planning/Programming

The TPB is committed to assisting the region achieve its GHG reduction goals by including projects, programs, and policies in its long-range transportation plan that help reduce GHG emissions, while also delivering the plan's safety, mobility, and accessibility goals in an equitable manner.

The TPB's priorities and goals, including climate change mitigation goals, can be realized only when TPB member jurisdictions and agencies implement the projects, programs, and policies needed to achieve TPB's goals and priorities.

The TPB wishes to obtain input from each member jurisdiction/agency on the impacts that TPB adopting surface transportation sector-specific GHG goals would have on the jurisdiction's/agency's transportation decision making process. For each question please choose all responses that apply.

Q1. How would TPB's adoption of surface transportation GHG reduction goals impact your jurisdiction's/agency's project planning and funding process?

- o Minimally – my jurisdiction/agency has surface transportation GHG reduction goals that inform project planning and funding decisions.
- o Some – reducing surface transportation GHG emissions would have to be an explicit consideration in the project planning and programming decisions.
- o Other (please describe):

Q2. Are surface transportation GHG reduction considerations reflected in your jurisdiction's/agency's transportation project, program, and policy decisions?

- o My jurisdiction/agency currently includes the above consideration as part of project planning and programming.
- o My jurisdiction/agency will be able to include the above consideration as part of project planning and programming.
- o My jurisdiction/agency will consider including the above consideration as part of project planning and programming.

Comment:

C. Surface Transportation Greenhouse Gas Reduction Strategies to Adopt

Studies conducted by the TPB and COG over the past 12 years examined various surface transportation GHG emissions reduction strategies (projects, programs, and policies). These studies identified three primary pathways to reduce surface transportation GHG emissions: 1) Fleet Conversion (Vehicle/Fuel Technology); 2) Reductions in Vehicular Travel; and 3) Traffic System Management and Operations.

The latest such study, the Climate Change Mitigation Study (CCMS) of 2021, explored several strategies within these three pathways and estimated the likely surface transportation GHG reduction from these strategies. The goal of this study was to determine a set of strategies that would reduce surface transportation sector GHG emissions by 50% below 2005 levels by 2030, and 80% below 2005 levels by 2050. The study found that achieving these goals would be challenging and require several major policy initiatives. For example, the study found that none of ten analyzed, bottom-up scenarios would be able to meet the 2030 goal of reducing surface-transportation-sector GHG emissions by 50% by 2030. Regarding the 2050 goal of an 80% reduction in surface-transportation-sector GHG emissions, the study found that one to six of the ten scenarios might be able to attain the 2050 goal, depending on how clean the electrical grid can become.

The TPB desires to adopt a set of strategies (projects, programs, and policies) in the three pathways (fleet conversion, vehicle travel, and traffic operations) to include in the policy element of the update to its long-range transportation plan, Visualize 2045. The strategies adopted by the board would represent the board's policy priorities to inform its members' decision making for projects, programs, and policies to be included in the future updates of the long-range transportation plan.

The TPB wishes to obtain input from each member jurisdiction/agency on the various GHG reduction strategies that were examined in the CCMS that it could adopt. Listed below are the various Fleet Conversion, Vehicle Travel, and Traffic Operations strategies that were analyzed and have the potential to reduce surface transportation GHG emissions.[1] Please select the response(s) that best represent your jurisdiction's/agency's input on the strategy and provide comments as needed. For each question please choose all responses that apply.

1. **All (100%) new light-, medium-, and heavy-duty vehicles sold in the region will be zero-emission vehicles (ZEVs), such as electric vehicles, and all buses on the road will be clean fuel (e.g., 70% of electric and 30% biofuel).**

The TPB:

- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:

- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.
- o other

Comments:

[1] Note that the CCMS did not explicitly analyze carbon pricing, such as a carbon tax or a cap-and-invest program, but it noted that "carbon pricing may be a mechanism that would help to support other strategies analyzed under this study, such as shifts toward EVs and less-carbon intensive modes of travel." (p. iii) Carbon pricing is not covered in this survey.

2. **Develop an electric vehicle charging network to support an accelerated shift of light-duty passenger cars and trucks to electric vehicles.**

   The TPB:
   - o should adopt this strategy for the region and monitor progress.
   - o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:
- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o other

Comments:

3. **Add approximately 126,000 additional housing units near TPB-identified high-capacity transit stations and in COG's regional Activity Centers above current forecasts by 2050 (COG Cooperative Forecasts Round 9.2).**

The TPB:
- o should adopt this strategy for the region and monitor progress.
- o should consult with the jurisdictional representatives on the specifics and implementation prospects prior to TPB's adoption.

My jurisdiction/agency:
- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

4. **The land use strategies evaluated in the CCMS were from an exploratory perspective to determine GHG reduction potential and not based on a thorough feasibility analysis. As such, not all strategies are feasible. The TPB seeks your comments on the following strategy that was examined.**

   Redistribute the forecasted growth (COG Cooperative Forecasts) in jobs and housing <u>from</u> current forecast locations <u>to</u> locations near TPB-identified high-capacity transit stations and in COG's regional Activity Centers, <u>within</u> jurisdictional boundaries, to improve the jobs-housing balance <u>locally</u>.

   The TPB:
   - o should adopt this strategy for the region.
   - o should consult with the jurisdictional representatives on the specifics and implementation prospects prior to TPB's adoption.

My jurisdiction/agency:

- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o
- o lacks the specific authority to implement this strategy.

Comments:

5. **The land use strategies evaluated in the CCMS were from an exploratory perspective to determine GHG reduction potential and not based on a thorough feasibility analysis. As such, not all strategies are feasible. The TPB seeks your comments on the following strategy that was examined.**

   Redistribute the forecasted growth (COG Cooperative Forecasts) in jobs and housing from current forecast locations to locations near TPB-identified high-capacity transit stations and in COG's regional Activity Centers across the region to improve the jobs-housing balance, regionally.

   - o My jurisdiction/agency lacks the specific authority to implement such a strategy.
   - o Actions taken to balance jobs and housing within jurisdictions will contribute to improved jobs and housing balanced regionally.

6. **Make all public transportation (bus and all forms of rail) in the region free.**

The TPB:

- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:

- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

7. **Price parking at all workplaces (for employees), varying between $12-$14/day in Activity Centers and about $6/day outside of Activity Centers (2020 dollars, adjusted for inflation).**

The TPB:

- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:

- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

8. **Reduce travel times on all public transportation bus services by 30% relative to 2020.**

The TPB:

- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:

- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

9. Complete improvements to walk/bike access to all TPB identified high-capacity transit stations.

The TPB:
- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:
- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

10. Complete the TPB's National Capital Trail Network to increase walk and bike trips throughout the day.

The TPB:
- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:
- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

11. Convert 40% of average daily work trips to telework. In 2019 (pre-COVID period), it is estimated that about 50% of the jobs in the region were telework compatible.

The TPB:
- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:
- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

12. **Charge a new fee of 10 cents per vehicle mile of travel by motorized, private, passenger vehicles in addition to the prevailing transportation fees and fuel taxes.**

The TPB:
- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:
- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

13. **Charge a "cordon fee" of $10 per motorized vehicle trip for all vehicles entering Activity Centers in the core of the District of Columbia.**

The TPB:
- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:
- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

14. **Implement traffic operational improvement measures at all eligible locations, including advanced ramp metering, enhanced incident management systems, active signal controls, and transit bus priority treatments.**

The TPB:
- o should adopt this strategy for the region and monitor progress.
- o should conduct a more comprehensive examination of the implications and implementation actions of this strategy prior to TPB's adoption.

My jurisdiction/agency:
- o is currently implementing this strategy.
- o will be able to work toward implementing this strategy.
- o will participate in sub-regional/regional efforts to implement this strategy.
- o lacks the specific authority to implement this strategy.
- o supports this strategy, but not at the proposed level of implementation.

Comments:

ITEM 11 – Information
January 19, 2022

Consideration of Climate Goals for Surface Transportation

Background:

The TPB completed the Climate Change Mitigation Study, which examined potential actions TPB member jurisdictions/agencies could take. The TPB has expressed its interest in adopting climate change goals. Chair Sebesky will outline the process for developing a majority consensus on the climate change goals and strategies to inform future updates of the long-range transportation plan.

National Capital Region
Transportation Planning Board

MEMORANDUM

TO: National Capital Region Transportation Planning Board

FROM: Ms. Pamela Sebesky, Chair, TPB
Mr. Reuben Collins, Vice Chair, TPB
Ms. Christina Henderson, Vice Chair, TPB.

SUBJECT: Process to Add Climate Change Mitigation Strategies to the Long-Range Transportation Plan and the Planning Process

DATE: January 13, 2022

This memorandum describes how climate change mitigation activities can be integrated into the TPB's long-range transportation plan (LRTP) and the associated planning process. The TPB has agreed that mitigating and adapting to the impact of climate change should be a regional planning priority along with other regional planning priorities previously adopted and documented in TPB policy documents[1]. The specific climate change elements to be included and the process for doing so proposed in this memo are based on the primary principles and outcomes that the Chair and Vice Chairs of the TPB have identified as key to securing the region's unified commitment to reduce on-road, transportation-sector greenhouse gas (GHG) emissions to help the region attain its multi-sectoral GHG reduction goals[2] for 2030 and 2050.

PRIMARY TASK

The goal of this task is articulating the TPB's on-road GHG reduction goals and endorsing a set of vehicular GHG reduction strategies. The primary tasks are (1) to identify the potential on-road GHG reduction goals, along with a set of multi-pathway strategies, to reduce vehicular GHG emissions and (2) to secure the consensus of the board for including these in the region's LRTP and planning process.

The purpose of including the on-road GHG reduction goals and a set of multi-pathway strategies in both the LRTP and the planning process is to help guide transportation investment decisions of the TPB member jurisdictions and agencies in the coming years. It is the TPB's expectation that the planning priorities included in the plan document, including climate change along with other priorities such as safety, increasing accessibility, reducing congestion, and increasing the usage of both transit and non-motorized modes are considered by its members' decision making processes to provide a more equitable, affordable, and reliable transportation system.

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[1] Documents describing TPB policy priorities may be found at: https://visualize2045.org/goals-and-future-factors/.

[2] The region's multi-sector GHG reduction goals adopted by COG in 2008 and 2020: Reduce GHG emissions – 20% below 2005 levels by 2020, 50% below 2005 levels by 2030 and 80% below 2005 levels by 2050.

PRINCIPLES TO GOVERN THE CURRENT TASK

The two primary principles to govern the tasks of including on-road GHG reduction goals and a set of strategies to achieve these reductions in the TPB's Plan and its planning process are: **consensus** and **commitment** to **implement equitably**. The TPB's primary interest in this task is reducing GHG emissions from on-road motor vehicles to contribute this sector's appropriate share toward the region's multi-sector GHG reduction goals. The first part of articulating climate change mitigation as a planning priority is adopting GHG reduction goals for the on-road sector. While the GHG reduction **goals** adopted for inclusion in the LRTP and the planning process could be aspirational, they should also be **based** on the **consensus** of **TPB** members, representing their jurisdictions or agencies. These goals should be consistent with the goals adopted by the region and the goals adopted by many of the TPB member jurisdictions. The second part of articulating climate change mitigation as a planning priority is endorsing a set of multi-modal and multi-pathway **strategies** (projects, programs, or policies) that have the **commitment** of **TPB member jurisdictions and agencies** to implement the applicable on-road GHG emissions-reducing projects, programs, and policies equitably and as expeditiously as possible.

Studies by both the TPB and others have made clear that mitigating and adapting to the adverse impacts of climate change requires a multi-sector and multi-jurisdictional effort that is comprehensive, coordinated, and continuous. For the TPB's commitment and efforts to reduce on-road GHG emissions to be successful and effective in informing transportation planning and programming decisions of its member jurisdictions and agencies, it is critical that the TPB actions be consensus-based and supported by the commitment of its member jurisdictions/agencies to work continually and in a coordinated and comprehensive manner. Unless appropriate and expeditious actions are undertaken by the TPB members, at both local and state levels, the region will struggle to achieve the reductions in on-road GHG emissions that are needed for the region to achieve its GHG reduction goals.

BACKGROUND

The TPB has long had enhancing and protecting the region's environmental quality as one of its goals for developing the region's long-range transportation plans.[3] Consistent with this goal, the **TPB has previously endorsed** the Metropolitan Washington Council of Governments' **regional multi-sector GHG reduction goals.**[4] Since 2009, the TPB has undertaken several regional studies[5] and analyses to examine the projects, programs, and policies ("strategies") that would reduce GHG emissions within the on-road sector (i.e., automobiles, trucks, and buses). Since 2010, the TPB also has been estimating the potential reduction in on-road GHG emissions from its long-range transportation plans to track progress toward the region's multi-sector GHG reduction goals.

With its October 2020 action endorsing new regional GHG reduction goals for 2030 as the impetus, and recognizing the less-than-optimal progress made to date in reducing on-road GHG emissions, together with the urgent need to take action to address the disruptive impacts of climate change, the **TPB recommitted itself** to redouble efforts **to reduce on-road GHG emissions**. To determine the

[3] See, for example, The TPB Vision, October 1998, https://www.mwcog.org/documents/tpbvision/
[4] December 2014 TPB endorsement and October 2020 TPB endorsement.
[5] 2010 What Would It Take; 2016 Multi Sector Working Group; 2017 Long Range Plan Task Force; 2021 Climate Change Mitigation Study.

specific actions that TPB members could take on this front, the TPB undertook a **Climate Change Mitigation Study** (CCMS), which was completed in December of 2021.[6] The CCMS built on the findings from the previous TPB studies and other best practices across the country and **examined** ten different scenarios for **reducing on-road GHG emissions in** three specific **"pathways"**: (1) clean fleet – transitioning from fossil fuels to clean fuel such as electric or hydrogen power; (2) reduced vehicular travel -- reducing the number of trips or miles travelled; and (3) operational improvements – improving the conditions under which vehicles operate on the roadways. Each scenario entailed a **combination of strategies (projects, programs, and policies)** in one or more of the three pathways that would reduce on-road greenhouse emissions.

PROPOSAL

Based on its work over the past decade and its current recommitment to the effort, the TPB should:

1. Explicitly adopt GHG reduction goals for the multi-modal on-road transportation sector; goals that are consistent and commensurate with the region's multi-sector GHG reduction goals[2].
2. Explicitly endorse a set of multi-pathway strategies that are anticipated to reduce on-road greenhouse gas emissions and commit to work towards implementing these equitably and as expeditiously as possible (keeping in mind that many of the most effective GHG reduction strategies might not traditionally be a part of regional LRTPs).

PROCESS

Given the dual goals of 1) developing **consensus** on the specific climate change-related elements to include in the TPB's LRTP and its planning process; and 2) establishing a clear **commitment** of the TPB member jurisdictions/agencies **to work to equitably implement** the strategies over the coming years, we propose that TPB staff develop a questionnaire for TPB member jurisdictions/agencies (completed by TPB members, acting on behalf of their jurisdiction/agency) on the details of the above two elements, for eventual inclusion in the LRTP and planning process.

This survey, similar to what was previously done with the Multisector Working Group in 2016 and 2017, will be an opportunity for each TPB member jurisdiction/agency to indicate their support for TPB adopting GHG emissions reduction goals for on-road transportation sector as well as their endorsement of a set of on-road GHG reduction strategies that they would support and implement. The GHG reductions strategies will be largely drawn from those examined under the ten scenarios in the TPB's CCMS[6]. The aggregate results of the survey would be reported to the board to inform its final action of adopting on-road GHG reduction goals and endorsing a set of strategies for inclusion in the LRTP document (Visualize 2045) and the TPB's planning process to inform future updates of the LRTP.

[6] ICF, Fehr & Peers, and Gallop Corporation, "TPB Climate Change Mitigation Study of 2021: Scenario Analysis Findings," Final Report (National Capital Region Transportation Planning Board, Metropolitan Washington Council of Governments, January 7, 2022). https://www.mwcog.org/tpb-climate-change-mitigation-study-of-2021/