TIP Project Codebook

Instructions

Coding Intent: To quantify the potential greenhouse gas emissions from planned projects contained in the fiscally constrained plan, usually referred to as Transportation Improvement Plan (TIP), which is part of a Metropolitan Planning Organization’s (MPO) Long Range Transportation Plan (LRTP).

Sources: The current TIP for each MPO as of 2015. The TIPs for all MPOs are publicly available.

Procedure:

1. TIPs were downloaded and converted from pdf to excel;
2. Projects were then classified as either a (primarily) single occupancy vehicle (SOV) or a high occupancy vehicle (HOV) project;
3. Projects were then further classified as either capacity-adding or non-capacity adding. For example, projects that were categorized as SOV might increase the number of travel lanes (adding capacity) or improve the travel shoulder (non-capacity adding). In many cases, project descriptions were insufficient to determine the full extent of the project, and follow up calls and emails were used to clarify project scope.
4. We used added single-occupancy roadway capacity to identify the general direction of greenhouse gas (GHG) impacts from an MPO’s transportation investment. Adding SOV capacity is fundamentally linked to additional vehicle miles traveled (VMT); as VMT increases, so will GHGs. Projects that add non-roadway capacity do not necessarily reduce VMT from SOVs, but they are far less likely to result in increased GHGs.
   a. Some projects were highly complex with multiple infrastructure improvement features (e.g., lane addition, signalization improvements and shoulder widening). These projects were organized such that each component was given a potential GHG contribution (given latent demand) which were then collapsed into a positive/negative GHG result using engineering judgement.
   b. HOV projects were assumed to result in fewer GHGs. Some HOV projects could be GHG neutral (e.g., park and ride lot), but in general HOV capacity projects were assumed to decrease overall GHGs.
5. For each MPO, the total number of projects and total project costs were computed in each category (SOV-added capacity; HOV-added capacity; SOV-no added capacity; HOV-no added capacity).