Additional Qs and As from EPA's CPRG Grantee Training on Co-Pollutant Inventory and Future Projections Benefits Analysis

Note: This document provides answers to additional questions that were not able to be answered during the live webinar due to time constraints, as well as extended answers to some questions answered during the webinar.

Q1: In the absence of data for flights, locomotives, etc. for use in the EPA State Inventory Tool (SIT), would it be appropriate to use the CO2 emissions from the National Emissions Inventory (NEI) for those portions or would this be misusing the data in the NEI?

The National Emissions Inventory provides information on criteria and hazardous air pollutants (NOx, SO2, CO, PM2.5, etc) as well as greenhouse gases (CO2, CH4, etc) for a subset of sectors at the county and/or facility-level. The NEI is one of several national datasets that may be of interest to CPRG grantees (please see the CPRG Program Guidance for more information about individual program deliverables and requirements). The NEI does include emissions estimates for both aircraft and locomotives, though it should be noted that aircraft emissions estimates are only for takeoff and landing cycles. For more information on aircraft and locomotive emissions in the NEI, please see here and here, respectively.

Q2: Much of the data discussed in the webinar is available at the county level. What if the grant area is not a county?

Under the CPRG planning grant program, EPA made grants to Metropolitan Statistical Areas (MSAs). In many cases, the boundaries of these MSAs align with county boundaries, and the county-level data available in NEI could be aggregated to determine an MSA level total. If an MSA boundary includes portions of a county, the data in NEI could be apportioned based on the location of specific point-sources and/or other data (e.g. # of households, # of vehicle registrations, commercial activity, etc.)

Q3: What is the source of the emission rates in AVoided Emissions and geneRation Tool (AVERT)?

The AVERT Statistical Module is a standalone methodology that estimates how fossil fueled generation units would operate (generate and emit) under different regional load levels. This methodology is specific to CO2, SO2, and NOx. (See Appendix B of the AVERT User Manual for more information.) AVERT uses a combination of the National Emissions Inventory and the Emissions & Generation Resource Integrated Database for PM2.5, VOCs, and NH3.

Q4: How can one claim benefits to a local area based on efficiency measures as power could be generated elsewhere?

EPA is not requiring a specific analytical approach to meet CPRG program requirements. Program participants are encouraged to be as detailed as possible when documenting analytical methods used and any assumptions made therein. This may include providing information, such as changes in power usage estimates, in lieu of providing specific co-pollutant emissions estimates. EPA will also be providing subsequent trainings and webinars about additional tools and resources that may be of interest to grantees (please see upcoming trainings schedule for more information). The planned CPRG Technical Assistance forums will also provide opportunities for knowledge exchange between program participants.

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Q5: In order to develop co-pollutant analyses will we first have to determine the estimated reduced energy demand?

For the co-pollutant benefits analysis, it may be difficult for applicants to estimate co-pollutant emissions changes associated with changes in energy demand or due to other policies. In those circumstances, the applicant may submit changes in activity data, which EPA can later use to estimate changes in co-pollutants. EPA will also be providing subsequent trainings and webinars about additional resources that may be of interest to grantees (all recordings will be posted on the CPRG Training, Tools, and Technical Resources Webpage). The planned CPRG Technical Assistance forums will also provide opportunities for knowledge exchange between program participants.

Q6: Are there examples of co-pollutants increase as a result of some GHG reduction measures?

Changes in activity and associated co-pollutant emissions resulting from specific GHG reduction strategies can be complex. CPRG grantees are expected to consider these implications when assessing potential outcomes of individual GHG reduction measures. Please refer to the Co-Pollutant Inventory and Future Projections Benefits Analysis YouTube Link for hypothetical examples of such interactions.

Q7: In your 10MW solar installation example, you appeared to simply ascribe criteria pollutant reductions to in-state EGUs, but many states are served by multi-state utilities with generation assets across many states. How would we apply AVERT co-pollutant reductions to our state inventories in this case?

In some cases, due to the nature of the electricity, interventions in one state may be expected to affect the generation and emissions of power plants in another state. Grantees can leverage tools like AVERT to estimate the location of these expected emissions changes and should report those emissions reductions according to the locations indicated by the tools. Grantees should also document/report the total emissions reductions expected by their interventions.

Q8: What if we live in a remote region where these inventories have not been done at a community level?

For remote regions where data is not available in the NEI, grantees may be able to obtain data from state or local agencies or private companies (e.g. utilities). The planned CPRG Technical Assistance forums will also provide opportunities for knowledge exchange between program participants on topics including data access.

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Q9: Should we be specific about what source reductions come from in the electric generation sector? If baseload is nuclear and renewable but excess is fossil fuel fired generation, can we assume all savings are from fossil sources?

EPA is not prescribing specific analytical approaches to meet CPRG program requirements. Program participants are encouraged to be as detailed as possible when documenting analytical methods used and any assumptions made therein. EPA will also be providing subsequent trainings and webinars about additional resources that may be of interest to grantees (please see upcoming trainings schedule for more information). The planned CPRG Technical Assistance forums will also provide opportunities for knowledge exchange between program participants.