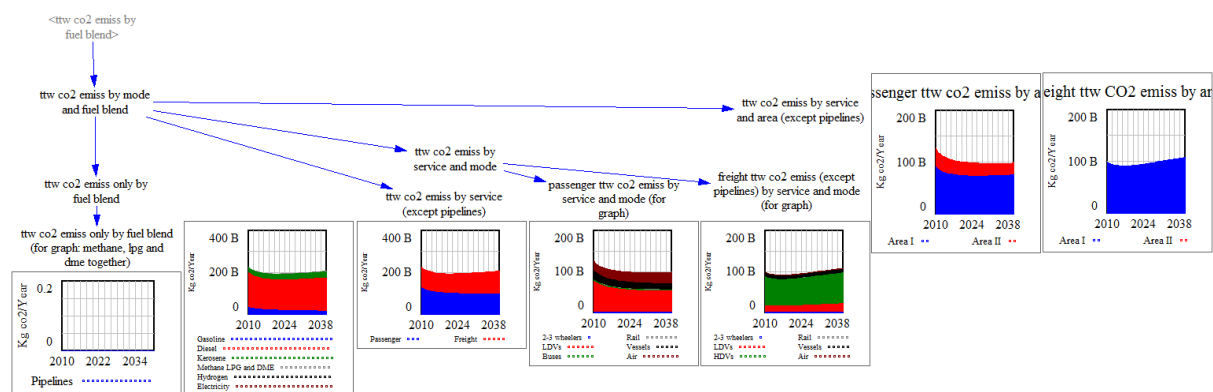# 44.   Outputs (ttw CO$_2$ emissions)

Overview

Target

The purpose of this view is to provide the results in respect of tank-to-wheel CO$_2$ emissions at different aggregated levels.

Structure

Figure 44.1 shows the sketch of the view.

Figure 44.1   Sketch of the view "outputs (cost)"

Detailed description of the view

Inputs

The only input entering this view is the variable "TTW CO2 EMISS BY FUEL BLEND". This is calculated in the view "CO2 emissions". This variable is split by service, area, mode, vehicle class and fuel blend.

Outputs

All the outputs are aggregated across different vehicle classes.

The graphs, from left to right, contain the following data:

- "ttw CO$_2$ emissions by pipelines "
  Annual tank-to-wheel CO$_2$ emissions over time corresponding to the mode PIPELINES (fuel blend PIPELINE BLEND). The results have been aggregated across the area subscripts.
  Units: kg CO$_2$/year.

- "ttw CO$_2$ emissions by fuel blend"
  Annual tank-to-wheel CO$_2$ emissions over time stacked by fuel blend. All the results have been aggregated across the area, service, and mode subscripts. METHANE BLEND, LPG BLEND and DME BLEND are shown as one single fuel blend.
  Units: kg CO$_2$/year.

- "ttw CO_2 emissions by service"
  Annual tank-to-wheel CO_2 emissions over time stacked by service. All the results have been aggregated across areas, modes (excluding pipelines) and fuel blends.
  Units: kg CO_2/year.

- "Passenger ttw CO_2 emissions by mode"
  Annual tank-to-wheel CO_2 emissions corresponding to the service PASSENGER and stacked by mode. All the results have been aggregated across areas and fuel blends. Two and three-wheelers are shown as a single mode.
  Units: kg CO_2/year.

- "Freight ttw CO_2 emissions by mode"
  Annual tank-to-wheel CO_2 emissions corresponding to the service FREIGHT and stacked by mode (excluding pipelines). All the results have been aggregated across the area and fuel blend subscripts. Two and three-wheelers are shown as a single mode.
  Units: kg CO_2/year.

- "Passenger ttw CO_2 emissions by area"
  Annual tank-to-wheel CO_2 emissions corresponding to the service PASSENGER and stacked by area. All the results have been aggregated across the mode and fuel blend subscripts.
  Units: kg CO_2/year.

- "Freight ttw CO_2 emissions by area"
  Annual tank-to-wheel CO_2 emissions corresponding to the service FREIGHT and stacked by area. All the results have been aggregated across the mode (excluding pipelines) and fuel blend subscripts.
  Units: kg CO_2/year.