

# Inventory Methods – High Level Overview

- **Transportation** (*methodology update in 2017 inventory – updated method shown below*)
  - Onroad and nonroad CO<sub>2</sub>: EPA SIT tool based on fuel use and emission factors (CO<sub>2</sub> from Fossil Fuel Combustion – CO<sub>2</sub>FFC)
  - Onroad and nonroad CH<sub>4</sub>, N<sub>2</sub>O: EPA SIT Mobile Combustion tool (VMT based with age distributions and emissions control adjustments)
- **Residential/Commercial/Industrial Fuel Use (RCI)**
  - CO<sub>2</sub> from RCI fuel use: EPA SIT tool based on fuel use (CO<sub>2</sub> from Fossil Fuel Combustion – CO<sub>2</sub>FFC)
  - CH<sub>4</sub> and N<sub>2</sub>O from RCI Fuel Use: EPA SIT tool based on fuel combustion - emission factors by sector (Stationary Combustion Module)
- **Agriculture**
  - EPA SIT tool estimate CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O from agriculture (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O from Agriculture Module)
    - CO<sub>2</sub> is very limited (almost entirely biogenic)
- **Industrial Processes** (CO<sub>2</sub>, N<sub>2</sub>O, HFCs, PFCs, NF<sub>3</sub>, SF<sub>6</sub>)
  - EPA SIT tool for majority of processes (most low contributions)
  - Ozone Depleting Substances (ODS) Substitutes: Tool created by CA for U.S. Climate Alliance States based on per capita values with equipment adjustments
  - Semiconductor manufacturing: based on EPA facility level reported data (with historical estimates projected)
- **Electricity** (consumption based)
  - Methodology developed previously with PSD: uses utility MWh purchase decisions (with REC adjustments) and emission factors by generation source type
- **Waste**
  - Wastewater: EPA SIT tool to estimate CH<sub>4</sub> and N<sub>2</sub>O emissions (Wastewater Module)
  - Solid Waste: Internally developed methodology based on annually reported landfill gas totals from landfill gas to energy (LFGTE) facilities
- **Fossil Fuel Industry** (CH<sub>4</sub> from transmission and distribution of natural gas)
  - Methodology based on miles of transmission and distribution natural gas lines and emission leakage factors (very similar to EPA SIT NG and Oil tool)