



The Climate Registry

## State Government Emissions Inventory Guide

The grid below is a guide for state governments creating their greenhouse gas (GHG) inventory under the The Climate Registry program. Listed below are the most common potential emission sources of GHGs, the data that should be collected for these sources, and potential data sources. Please note that this is not a comprehensive list of sources that could appear in a state government's inventory.

**Key:**

I – Indirect emissions

S – Stationary emissions

M – Mobile emissions

P – Process emissions

F – Fugitive emissions

Emission Source	Type of Emissions	Data Requirements	Potential Data Source
<b>Buildings</b> (All state managed facilities)	I S F	1) Report CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O using the annual consumption of the following by facility: <ul style="list-style-type: none"> <li>• Electricity</li> <li>• Natural gas</li> <li>• All other fuels</li> </ul> 2) In the case of imported steam or district heating or cooling, additional information may be required to report.           3) Report refrigeration and HV/AC systems: <ul style="list-style-type: none"> <li>• Type of refrigerants</li> <li>• Type and quantities of A/C equipment</li> <li>• Total refrigerant charge</li> <li>• Annual leak rates</li> </ul>	<ul style="list-style-type: none"> <li>• Utility provider that transmits the power source (e.g., investor-owned utility, municipal utility)</li> <li>• Accounts Payable Dept</li> <li>• Property Management</li> <li>• HVAC maintenance contract manager</li> </ul>
<b>Vehicle/Aircraft Fleet</b> (vehicles in state or state agency managed fleet)	M F	1) Report CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O using the annual consumption of the following by vehicle: <ul style="list-style-type: none"> <li>• Fuel consumption or mileage data by vehicle/vehicle type/vehicle year</li> </ul> 2) Report HFCs from vehicle AC systems: <ul style="list-style-type: none"> <li>• Type of refrigerants</li> <li>• Number and type of vehicles in fleet</li> <li>• Total refrigerant charge</li> <li>• Annual leak rates</li> </ul>	<ul style="list-style-type: none"> <li>• Fleet Management</li> <li>• Accounts Payable</li> </ul>
<b>Water &amp; Sewage</b> (treatment, pumping)	I S P F	1) If water and sewage services are state controlled/partially owned, report the CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O using the annual consumption of the following by facility: <ul style="list-style-type: none"> <li>• Electricity</li> <li>• Natural gas</li> <li>• All other fuels</li> </ul> 2) CH <sub>4</sub> and N <sub>2</sub> O process emissions from water/sewage treatment <ul style="list-style-type: none"> <li>• Guidance in development by California wastewater agencies</li> </ul>	<ul style="list-style-type: none"> <li>• Utility provider that transmits the power source (e.g., investor-owned utility, municipal utility)</li> <li>• Accounts Payable</li> <li>• Dept Public Works Dept</li> <li>• Municipal Utility District, e.g. EBMUD</li> </ul>
<b>Generators</b> (back-up generators)	S	1) Report CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O using the annual consumption of the following by source: <ul style="list-style-type: none"> <li>• Electricity</li> </ul>	<ul style="list-style-type: none"> <li>• Bulk Fuel Purchases</li> <li>• Maintenance/testing records</li> </ul>

		<ul style="list-style-type: none"> <li>• Natural gas</li> <li>• Diesel</li> </ul>	
<b>Other Common State Emission Sources</b>			
<b>National Guard</b> (vehicles, buildings, lands)	I S M F	<ol style="list-style-type: none"> <li>1) See buildings</li> <li>2) See fleets</li> </ol>	
<b>Fire Protection</b> (vehicles, fire suppression systems)	I S M F	<ol style="list-style-type: none"> <li>1) See buildings</li> <li>2) See fleets</li> <li>3) Report HFCs from fire suppression systems: <ul style="list-style-type: none"> <li>• Type of suppressants</li> <li>• Number and type of vehicles in fleet</li> <li>• Total charge</li> <li>• Annual leak rates</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• Maintenance records</li> <li>• Coolant purchase records</li> </ul>
<b>Road Construction</b> (vehicles, cement & asphalt production)	I S M P	<ol style="list-style-type: none"> <li>1) See buildings</li> <li>2) See fleets</li> <li>3) Cement production <ul style="list-style-type: none"> <li>• Mass balance of sorbent used (CaCO<sub>3</sub>)</li> </ul> </li> </ol>	
<b>Laboratories</b>	I S F	<ol style="list-style-type: none"> <li>1) See buildings</li> <li>2) Gases for testing: <ul style="list-style-type: none"> <li>• N<sub>2</sub>O</li> <li>• HFCs, PFCs</li> </ul> </li> </ol>	<ul style="list-style-type: none"> <li>• Bulk Fuel Records</li> </ul>
<b>Universities</b>	I S M F	<ol style="list-style-type: none"> <li>1) See buildings</li> <li>2) See fleets</li> <li>3) See generators</li> </ol>	
<b>Parks and Lands</b>	I S F	<ol style="list-style-type: none"> <li>1) See buildings</li> <li>2) See fleets</li> <li>3) Fish Hatcheries <ul style="list-style-type: none"> <li>• Potential N<sub>2</sub>O</li> <li>• Potential CH<sub>4</sub> from fish food</li> </ul> </li> </ol>	
<b>Other</b> (Emissions that may not be captured in above categories)	I S M F	<p>Examples may include: portable equipment, lawnmowers, weed-whackers, leaf-blowers, scissor lifts, etc.):</p> <ul style="list-style-type: none"> <li>• Fuel consumption</li> <li>• Hours of use</li> </ul> <p>• Report for fire suppression systems, data necessary to calculate emissions of PFCs</p>	<ul style="list-style-type: none"> <li>• Dependent upon emissions source</li> <li>• Maintenance records</li> <li>• Air permits</li> </ul>

Guidelines for calculating and reporting GHG emissions can be found in The Climate Registry's General Reporting Protocol (GRP).

If the Registry has not endorsed guidelines for quantifying emissions from a particular emissions source, you should use existing industry best practice methods.