

**METHODOLOGIES AND TOOLS FOR GLOBAL CONSISTENCY OF GREENHOUSE GAS
EMISSIONS ESTIMATION AND REPORTING
FOR THE OIL & GAS INDUSTRY SECTOR**

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Global Oil & Gas Industry operations encounter unique operational and business environments while developing greenhouse gas (GHG) management strategies. In all cases companies need consistent, reliable, and credible methodologies to derive GHG emission estimates, along with a common framework for defining the boundaries for reporting emissions. Being cognizant of the need for accurate and industry-relevant GHG emission estimation tools, the American Petroleum Institute (API) developed the “Compendium of Greenhouse Gas Emissions Estimation Methodologies for the Oil & Gas Industry” (API Compendium). Over the past couple of years, API has engaged in focused activities to promote harmonization of methodologies worldwide in order to attain comparability of reported GHG emissions. In addition, it has adopted the use of a software tool, SANGEATM, which was originally developed by ChevronTexaco to implement the methodologies embedded in the API Compendium. Moreover, API in collaboration with the International Petroleum Industry Environmental Conservation Association (IPIECA) and the International Association of Oil and Gas Producers (OGP), developed a consistent global framework for accounting and reporting of GHG emissions by the industry sector, titled the “Petroleum Industry GHG Reporting Guidelines” (Industry Guidelines). The paper will provide highlights of the Industry Guidelines and the API Compendium; will feature the results obtained while ‘road-testing’ the API Compendium and comparing it to other common protocols; and showcase some of the key features of the SANGEATM software system to track manage GHG emissions and energy consumption information.