



King County, WA

Government Operations Consumption Inventory

Project Summary

As part of a team developing a comprehensive, multi-county climate action plan and strategy, KLA led the development of a consumption-based GHG inventory for county operations. This inventory provided important data in King County's pursuit of carbon neutrality by addressing significant sources of upstream GHGs from all County activities. This project involved analysis of over 680,000 transactions covering \$1.6 billion in expenditures across 22 departments and 116 divisions. To perform a comprehensive analysis of all expenses, [the US Environmentally Extended Input Output \(USEEIO\) model](#) was used as the basis for calculating climate impacts. Following success of the analysis for King County operations, the project was extended to provide an analysis for \$1.5 billion in expenses from City of Seattle Public Utilities.

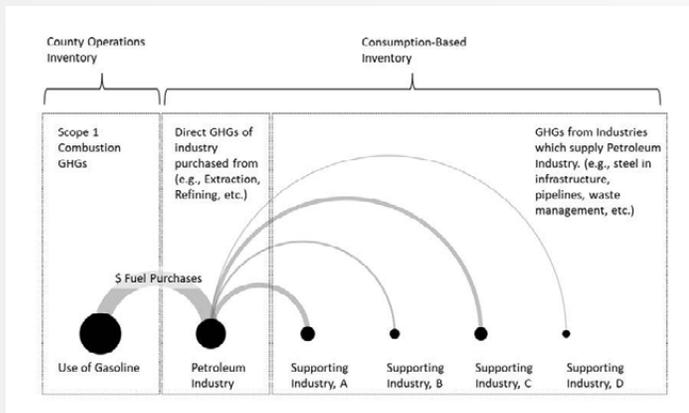
Timeline: September 2021 - December 2022

Project Highlight

The project analysis confirmed that the highest sources of upstream emissions were related to infrastructure development. This knowledge validates existing efforts to track and quantify the impact of specific materials such as concrete through the use of environmental product declarations.

New findings included the unanticipated large impact of contracted services, particularly around health and human services. This knowledge can help engage those suppliers on reducing the carbon intensity of their services.

Graphical representation of the relationship between GHGs assessed for fossil fuels in a traditional operations inventory vs. consumption based



Activities & Outcomes

- Processed over 1 million transactions to map spending patterns to the 389 product and industry types in the USEEIO model
- Developed a summary report to communicate results to purchasing staff throughout the County in approachable language
- Developed a flexible tool that allows the client to perform their own updates as internal data improves or change are made to the USEEIO Model
- Delivered an instruction guide and recommendations for purchasing data management to build additional capacity for future analyses

New approaches to data visualization were required to communicate the many new sources of GHG assessed in a consumption inventory and the wide range of magnitude of GHGs across departments

