#17: CLIMATE

2017 CORE METRIC FOR REGIONAL INDICATOR CITIES (17.1-17.4)

Bold, green font indicates data elements that are eligible to be recognized at Step 5 if improvement is demonstrated.

DATA ELEMENTS

17.1 Greenhouse gas (GHG) emissions from travel, Tonnes CO_{2e}
17.2 GHG emissions from waste, Tonnes CO_2e
17.3 GHG emissions from (non-transportation) energy, Tonnes CO_2e
17.4 Total citywide GHG emissions, Tonnes CO_2e
17.5 Total city operations GHG emissions, Tonnes CO_2e

DEFINITIONS

- **Data is for the latest calendar year, for community-wide emissions**. (Elements 17.1-17.4)

- **GHG emissions are calculated and denoted** in metric tons of CO_2-equivalent gases (Tonnes CO_2e) using nationally accepted greenhouse gas accounting standards. (Elements 17.1-17.5)

- Greenhouse gas emissions from **travel** include vehicle travel within city boundaries. The Regional Indicators measure was determined by gathering vehicle miles traveled data compiled annually by the Minnesota Department of Transportation. Greenhouse gas emissions are calculated based on an estimated mix of vehicle types. (Element 17.1)

- Counties are the lowest level of government that currently and consistently collect **solid waste** data. As such, the most appropriate method is to assume city waste management data is comparable to countywide data on a per-capita basis. Greenhouse gas emissions are calculated for different management methods. After January 2017 city-level data in the 7-county metro area will become available and worked into the Regional Indicators data display. (Element 17.2)

- GHG from **energy** include emissions associated with electricity, natural gas, fuel oil, coal, biomass, and district energy used within city boundaries, as collected from energy utilities. **Water** emissions (energy used to clean and distribute water) are accounted for under this Element. (Element 17.3)

- **Total citywide** greenhouse gas emissions include the sum of all sources of emissions. (Element 17.4)

DATA SOURCES

- **Regional Indicators Initiative:** http://www.regionalindicatorsmn.com/ (Elements 17.1-17.5)
- **Cities that have completed their own** greenhouse gas emissions inventory are encouraged to submit their data elements and include an explanation in the justification box. Examples include any cities that have used:
  - ClearPath form ICLEI, using the software platform at http://icleiusa.org/clearpath/
  - EPA's calculator at https://www.epa.gov/statelocalclimate/local-greenhouse-gas-inventory-tool
  - A consultant

RATIONALE

Greenhouse gas inventories offer a valuable way to compare over time the effectiveness of multiple energy and sustainability best practice actions. Greenhouse gas emissions (and energy) serve as common denominators for the comparison of many of the environmental effects associated with the use of electricity, natural gas, liquid fuels, solid fuels (wood and coal), solid waste management methods, and potable water.

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GHG inventories support planning for sustainability by defining a baseline, tracking a trajectory, and measuring outcomes of actions taken by a city that are aimed at meeting energy and climate goals. They can also track progress toward meeting the State's goals regarding energy efficiency and greenhouse gas reduction, as defined by the Next Generation Energy Act of 2007.

The calculation of an annual city operations GHG number is as fundamental to the environmental management and health of a city as its annual budget is to its financial management and health. Like an annual community (city-wide) GHG calculation, the data-gathering and calculation process for a city operations GHG element brings disparate city staff together and has value in interdepartmental data sharing and discussion. Most data elements that a city would use for a city operations calculation are now collected under other GreenStep metrics: buildings, lighting, vehicle fleets, employee commuting, drinking water, and waste water plants.

STEP 5 GOALS

Individual cities are best equipped to set realistic goals for improvement, and any improvement of this metric is good. That said, the State of Minnesota, as part of the Next Generation Energy Act, set targets for greenhouse gas emission reductions of 30% by 2025 and 80% by 2050, below 2005 levels (M.S. § 216H.02)

NEED HELP? CONTACT

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