**What:** An online geospatial tool available on the City's website to the public, with information on City of Toronto's buildings' energy use.

**Timeline**: We would require the map to be live and available on the City's website for the public to view and interact with by August of 2019.

**Purpose**: Display energy metrics data for buildings in Toronto over a map. Visualizations tools allowing the public to filter/boil down buildings based on specific variables to analyse in detail. Energy metrics will need to be updated for the tool once every year.

At the very minimum, the tool will need to geospatially display all buildings that have reported by a dot, a color scale for these dots will identify the building's energy performance rating. Followed by a set of map filters the public can use to narrow down on the information they would like to analyze.

**Comparison to a CoT existing tool:**

Using the TTC walking distance map example that the Geospatial team has already worked on, some further additions required for our tool would be the following:

* Ability to filter the property types and display them on the map one at a time (for example walking distance only for houses or only for apartments), or filter specific ranges of metrics (for example displaying buildings with walking distance less than 5 mins only and hiding the rest). This will help the public compare their building more specifically within their sector and band. Property type information will off course be also included in the raw data we provide.
* Ability to swap one metric for the other i.e. choosing between displaying Energy Use Intensity, Water Use Intensity, Greenhouse Gas footprint, etc. on the map.
* Ability to type a specific address in a search bar and zoom directly to the particular property parcel.
* Comparison graphs/charts showing where the building stands among the rest (for example a bar graph of Energy Use intensity plotted against year built for property type: warehouse, with a particular building address highlighted in the distribution).

**Tools we would like to mirror:**

Existing Online Tools created by U.S. cities that we would like to emulate as closely as possible (in order of preference):

1) Philadelphia: <http://visualization.phillybuildingbenchmarking.com/#!/>

 2) Boston: <http://boston.maps.arcgis.com/apps/webappviewer/index.html?id=049576c7287f4ee09bcb0a062e43b55c>

 3) Seattle: <http://www.seattle.gov/energybenchmarkingmap/#seattle/2016?layer=energy_star_score&sort=energy_star_score&order=desc&lat=47.61&lng=-122.33&zoom=12>

 4) Chicago: <http://cityenergyproject.github.io/chicago/#chicago/2017?layer=energy_star_score&metrics[]=energy_star_score&sort=energy_star_score&order=desc&lat=41.8843&lng=-87.6325&zoom=11>

 5) New York: <https://serv.cusp.nyu.edu/projects/evt/>