CITY-BASED OPTIMIZATION MODEL FOR ENERGY TECHNOLOGIES

COMET – NEW YORK CITY

COMET IS DESIGNED TO HELP CITIES MAKE SUSTAINABLE AND RESILIENT ENERGY DECISIONS.

ELECTRIC GENERATING UNITS

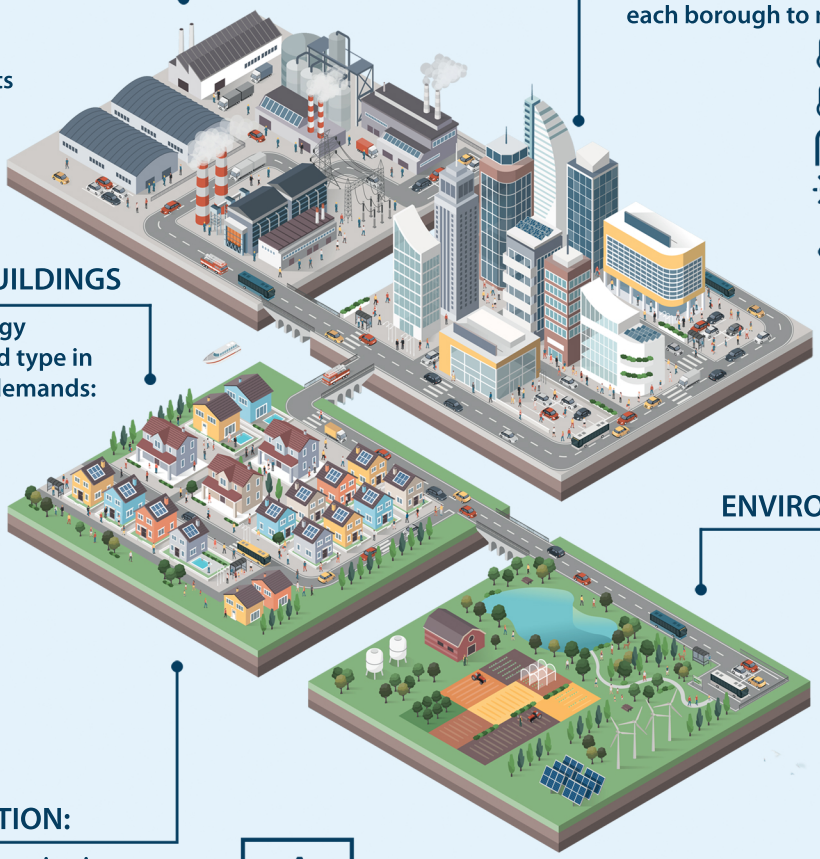
Existing and future technology characterization

- Natural gas
- Other generating units

COMMERCIAL BUILDINGS

Existing and future stock of energy technologies by building age and type in each borough to meet end-use demands:

- Space Heating
- Space Cooling
- Water Heating
- Lighting
- Misc. Load



RESIDENTIAL BUILDINGS

Existing and future stock of energy technologies by building age and type in each borough to meet end-use demands:

- Space Heating
- Space Cooling
- Water Heating
- Lighting
- Misc. Load

ENVIRONMENT

Air and GHG emissions
Water consumption

TRANSPORTATION:

Existing and future fleet characterization to meet transport demand for:

- Light duty vehicles
- Bus
- Medium duty vehicles
- Heavyduty, short haul vehicles
- Rail passenger and subway

ELECTRIC GENERATING UNITS IN NEW YORK STATE

Calibrated to electricity generation in 2010 (below) and 2015 and characterized future electricity generating

Gas	Nuclear	Hydro	Coal
49 TWh	42 TWh	25 TWh	14 TWh
Wind	**Biomass**	**Oil**	**Other**
3 TWh	3 TWh	2 TWh	1 TWh

FUEL AND ELECTRICITY IMPORTS TO NEW YORK STATE:

Extraction, production and transmission of oil & gas, coal, uranium; refinery products (gasoline, diesel); electricity