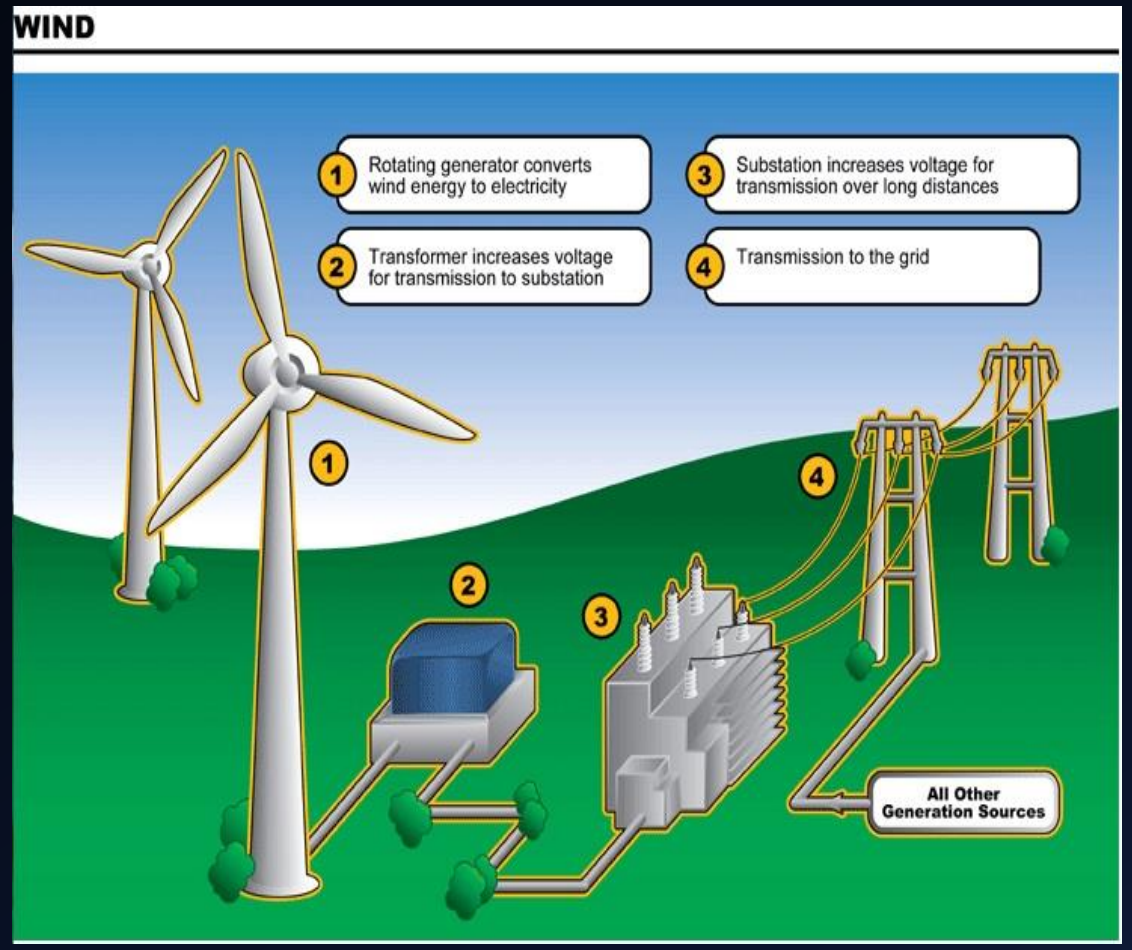
Renewable Energy

USING WIND TURBINES

What is wind power?

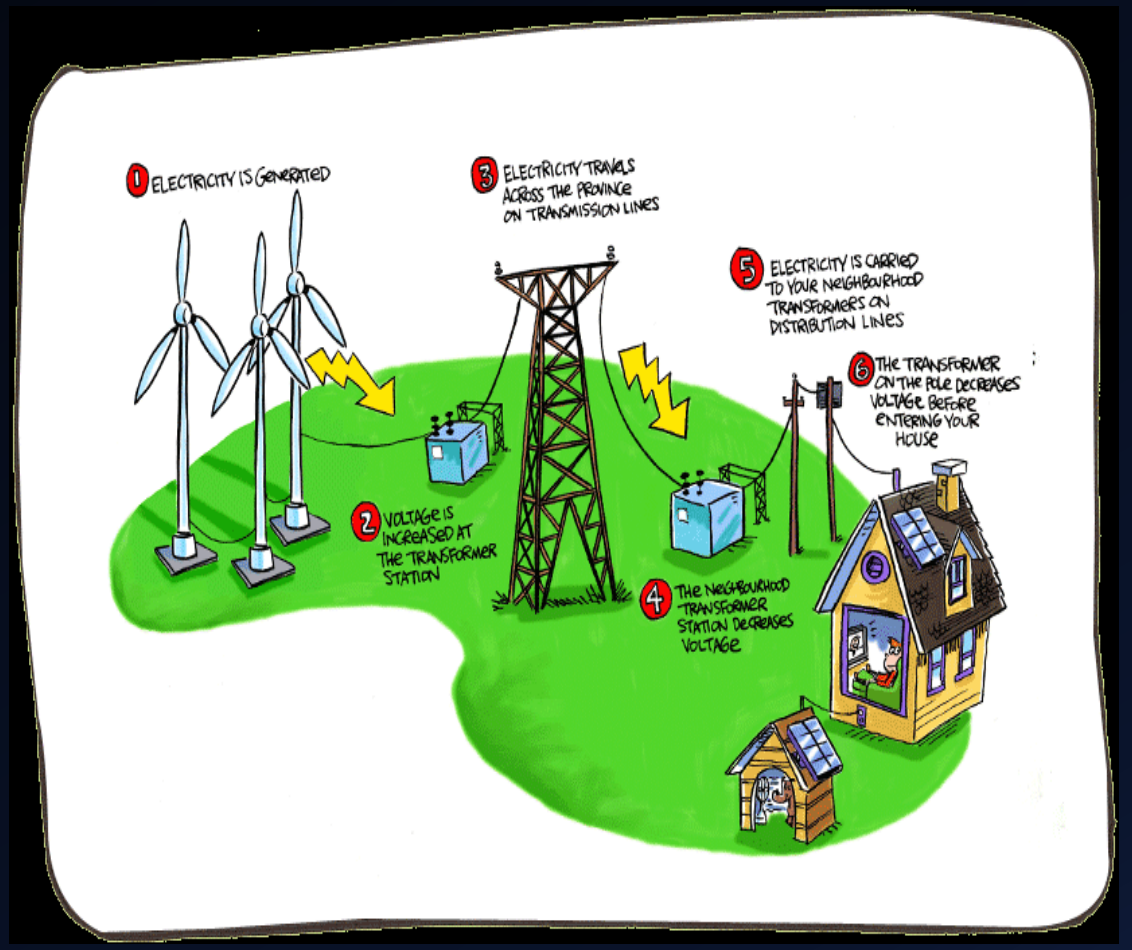
How wind energy works

- When wind blows past a turbine, the blades capture the energy and rotate. This rotation triggers an internal shaft to spin, which is connected to a gearbox increasing the speed of rotation, which is connect to a generator that ultimately produces electricity.



How wind energy gets to you

- Wind turbines often stand together in a windy area that has been through a robust development process in an interconnected group called a wind project or wind farm, which functions like a wind power plant.



Major types of wind power

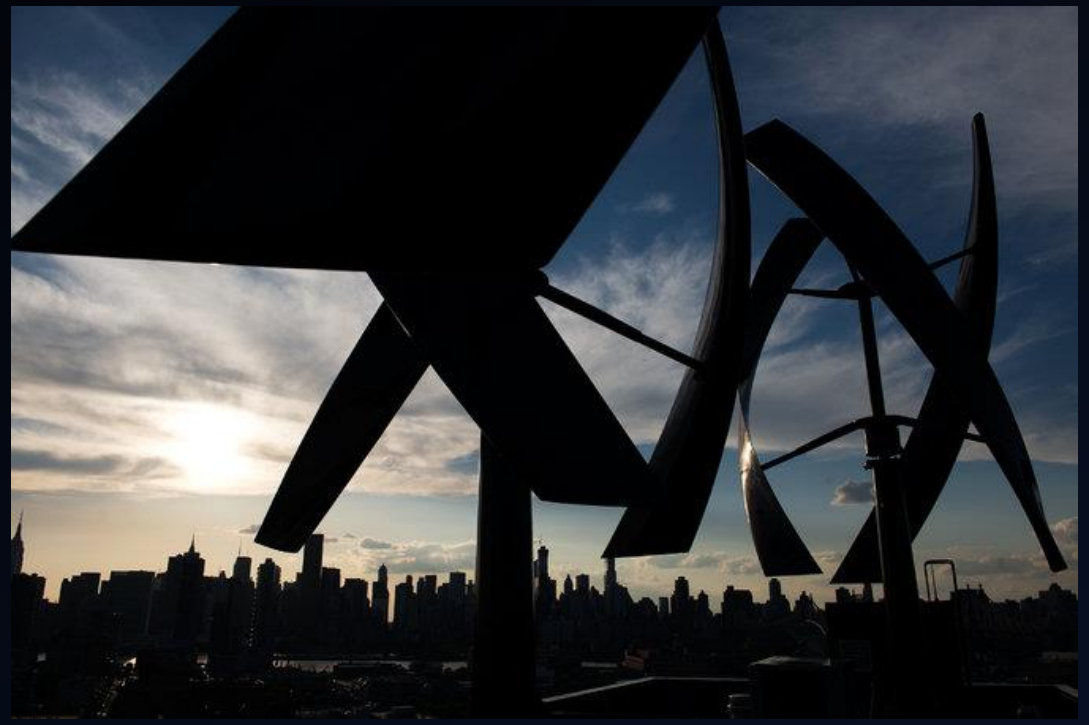
- Utility-scale wind
- Distributed or “small” wind
- Offshore wind

Wind turbines in the city

- Typical turbines require a steady breeze of 10 miles per hour or more, whereas winds in New York can easily jerk from 3 to 30 miles per hour and come from all directions

- Because of the city's wind sporadic wind patterns, New York developers favor helix-shaped turbines

Wind turbines in the city



Sims Municipal Recycling

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Sources

- Fact Sheet Sims Municipal Recycling Sunset Park Material Recovery Facility (MRF)

http://www.simsmunicipal.com/NYC/Sunset-Park-MRF/~/media/Documents/SMR/MRF%20Fact%20Sheet_Solar%20Fact%20Sheet_Sustainability%20at%20Sims_.ashx

- Turbines Popping Up on New York Roofs, Along With Questions of Efficiency

http://www.nytimes.com/2014/05/27/nyregion/turbines-pop-up-on-new-york-roofs-along-with-questions-of-efficiency.html?_r=1

- Wind 101: the basics of wind energy

http://www.awea.org/Resources/Content.aspx?ItemNumber=900