

Reflection:

In my region, the main source of energy in my region comes from natural gases, which makes up about 67.38% of all electric generation. Beyond that, some energy comes from municipal biogenic and non-biogenic solid waste. On Long Island, 6% of electricity is produced from renewables. However, although renewable energy sources like solar and land-based wind make up a small fraction of regional energy generation, there are growing regional and state wide shifts towards cleaner energy sources. Furthermore, I estimated that my household uses 30,000-35,000 kWh of energy per year.

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One recent renewable project is the Jericho Rise Wind Farm, located in Franklin County, NY. This power plant facility has installed about 77.7 MW, and generates around 230-250 GWh annually, delivering wind-powered electricity into New York's energy grid, reducing the reliance on fossil fuels.

Through creating my energy circle, I realized that when I charge my devices, turn on the lights, use the stove for cooking, use my heater, the energy used to power these activities come from natural gases, with little contributions from renewable sources. Being aware of this difference allowed me to understand how deeply my daily energy consumption relies on nonrenewable sources. This understanding encourages me to be more mindful about conserving energy in my daily life, reducing waste, and supporting cleaner energy solutions.

What surprised me the most about where my electricity comes from is the fact that my region relies on a large share of natural gas. I didn't realize that a majority of the electricity I use every day for daily functions like charging my phone or heating up food in the microwave is still tied to fossil fuels. The dependence on natural gases affects people and the planet in multiple ways. Specifically, burning natural gases releases carbon dioxide and methane, which are two major greenhouse gases that contribute significantly to climate change. Additionally, extracting and

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transporting natural gas can lead to air and water pollution, harming local ecosystems and nearby communities. When researching the impacts of natural gases on people, I came across an article of a massive leak of natural gas at the Aliso Canyon Natural Gas Storage Facility. In 2016, the Aliso Canyon natural gas well blowout released over 100,000 tons of methane, which made it the largest U.S. methane leak in history. It caused the evacuation of 5,726 families, raising serious health concerns such as headaches, nausea, etc. Since methane is a very potent greenhouse gas, the leak of methane caused huge environmental consequences for the planet. Furthermore, this massive leak is responsible for about 30% of the global warming we're experiencing today.

In the future, I plan to reduce electricity use by encouraging my parents to install a small renewable energy system through solar panels. This will be especially beneficial considering that my average household electricity consumption is significantly greater than the national average of around 10,000-12,000 kWh. Additionally, I plan to look towards purchasing energy efficient products. For example, products such as the Bonavita Enthusiast 8-Cup Coffee Maker, a brewer with optimized heating control for more efficient brewing and less wasted energy/standby time, and other ENERGY STAR products are good energy-efficient alternatives.

Sources I've Used:

 $\underline{https://www.edp.com/en/north-america/projects/jericho-rise-wind-farm\#:\sim:text=Pr}$

oject%20overview,of%20income%20to%20local%20landowners

https://www.gridinfo.com/plant/jericho-rise-wind-farm-llc/59629

https://findenergy.com/ny/nassau-county-electricity/#overview

 $\underline{https://www.energy.gov/energysaver/reducing-electricity-use-and-costs}$

 $\underline{https://www.noaa.gov/media-release/study-2015-california-blowout-led-to-largest-us-methane-release/study-2015-california-b$

<u>lease-ever</u>

https://www.energystar.gov/productfinder/

https://vitalsigns.edf.org/story/aliso-canyon-anniversary

Instagram Caption:

Through creating my energy circle, I realized that when I charge my devices, turn on the lights, use the stove for cooking, use my heater, the energy used to power these activities come from natural gases, with little contributions from renewable sources. Being aware of this difference allowed me to understand how deeply my daily energy consumption relies on nonrenewable sources. This understanding encourages me to be more mindful about conserving energy in my daily life, reducing waste, and supporting cleaner energy solutions. Thus, in the future, I plan to adopt a small renewable energy system and purchase energy efficient products/appliances. TurningGreenOrg @greenamerica_@globalfootprintnetwork #pgc2025

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