Questions and Discussions

A. ***How fast is the global access to electricity growing?*** The global access to electricity is growing at a slow pace and progress toward universal access has slowed over the last 20 years. Based on current trends, it will grow from 91% (2021) to 92% (2030).

B. ***Which regions saw the largest growth in access to electricity?*** South Asia and Sub-Saharan Africa both saw the largest increase in access to electricity.

C. ***How does living in the urban vs. rural areas correlate to access to electricity?*** There is a divide in global access to electricity between urban and rural areas as 675 million people worldwide lacked access to electricity in 2021 and around 80% of those people lived in rural areas.

D. ***Which data is used to gain insights on where people without access to electricity live?*** We can visualize access to electricity through nighttime lights captured by satellite images. Nighttime lights can help visualize the current state of electrification in regions.

E. ***How does MTF assess the quality of access to electricity in a household?*** With the Multi-Tier Framework, electricity must meet certain requirements such as capacity, quality, affordability, reliability, and safety for households to fully enjoy the benefits of being connected. There are six tiers of access to electricity, with Tier 0 representing no access or minimal access and Tier 5 daily capacity can power AC, a heater, a microwave, a fridge, or a washing machine.

F. ***What is the environmental trade-off for higher tier access to electricity?*** Higher access to electricity comes with the increase in greenhouse gas emissions.

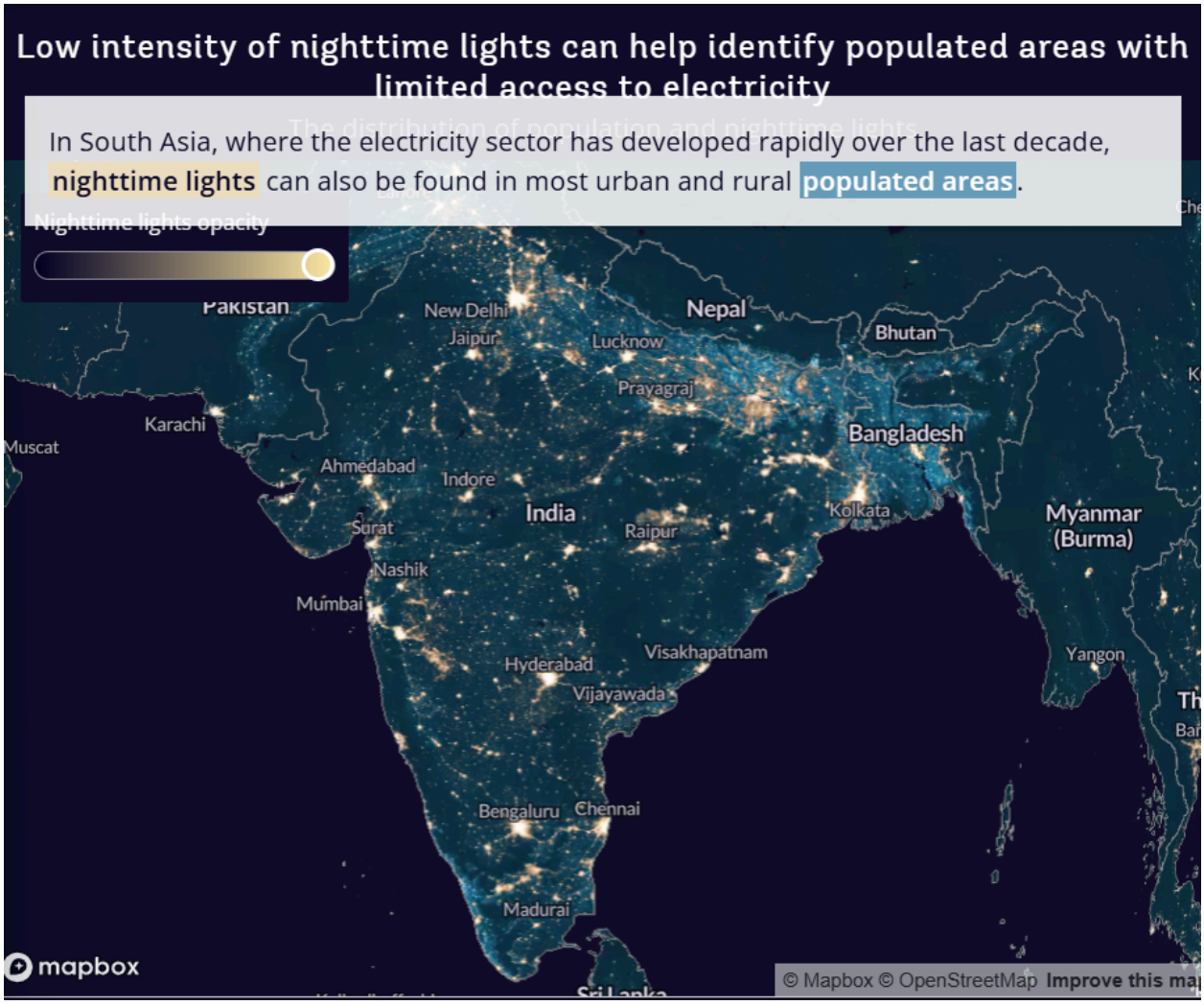
G. ***Which regions had the most environmentally sustainable efforts to increase access to electricity? Which regions had it the worst?*** Latin America & the Caribbean, South Asia, and Sub-Saharan Africa had the most environmentally sustainable efforts to increase access to electricity. North America, Europe, and Central Asia had it the worst.

H. ***Which is the fastest-growing renewable source of electrical energy in low-income countries? What should be considered when planning for this method of power generation?*** The fastest-growing renewable source of electrical energy in low-income countries is hydropower. But, the potential impact of climate change on surface water flows should be considered when planning hydropower projects.

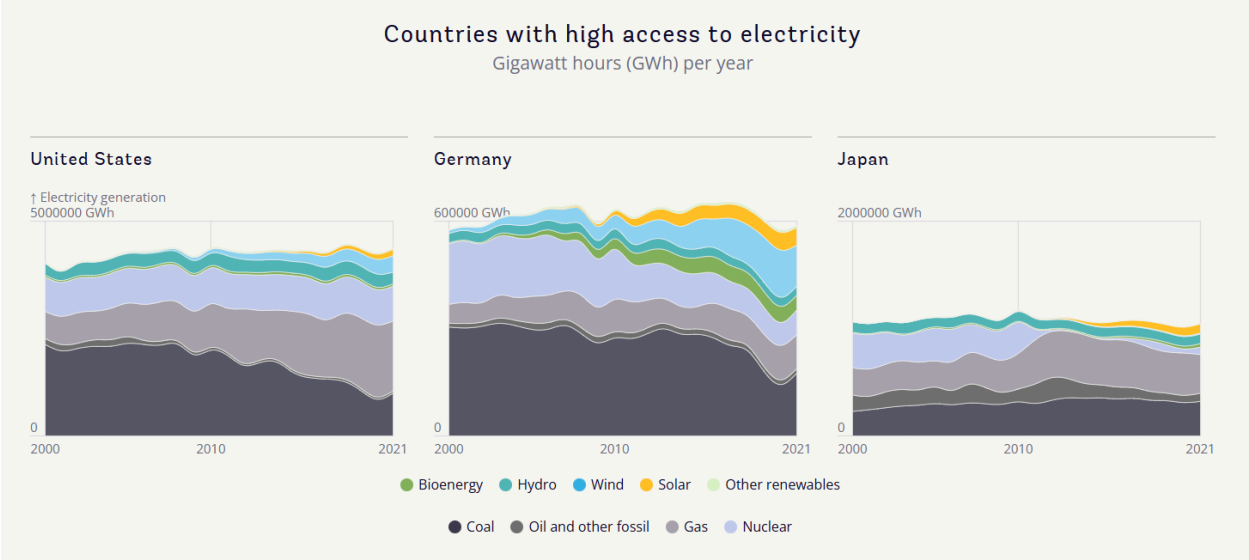
I. ***Was this presentation an effective storytelling with data? Why, or why not?*** Yes. Without addressing the visuals first, the use of simple text and boldness of the text to emphasize specific statistics was good. Also, all of the visuals were very interactive and it was nice how this presentation kind of guided us into exploring the visuals (like

taking us through different regions of the map to point out certain details before letting us explore it ourselves).

J. ***Which data visualization from the presentation was most appealing to you? Insert a screenshot and explain why.*** I really appreciated the interactive world map that took us through different regions' distribution of population and nighttime lights. Different captions queued the movement to the specified region and provided more details to the user.



K. ***Which data visualization from the presentation was least appealing to you? Insert a screenshot and explain why.*** I didn't really like the last visualizations that showed the electricity generation by source for different countries. It was not very interactive, I at least would have expected a pop up if you hover over a certain source of energy. It is hard to put a number to how much each source contributes to the total amount of electricity generated. Also, if a source is particularly small, you can't even see it on the graph because it appears as a very small sliver/line in comparison to other sources.



World Bank. (n.d.). Goal 7: Affordable and clean energy. SDG Atlas. https://datatopics.worldbank.org/sdgatlas/goal-7-affordable-and-clean-energy/?lang=en