5 sources for annotated bibliography:

Brady, J. (2019). *This Company Says The Future Of Nuclear Energy Is Smaller, Cheaper And Safer*. NPR. Retrieved from https://www.npr.org/2019/05/08/720728055/this-company-says-the-future-of-nuclear-energy-is-smaller-cheaper-and-safer

Conversation starter question: How can nuclear energy become safer while still producing the same amount of energy?

Quote: "Instead of one big nuclear reactor, Reyes says his company will string together a series of up to 12 much smaller reactors…The reactors would be in a containment vessel, underground and in a huge pool of water that can absorb heat. That means that even a reactor that fails would still be safe."

Goldstein, J., Qvist, S., Pinker, S. (2019). *Nuclear Power Can Save the World*. The New York Times. Retrieved from https://www.nytimes.com/2019/04/06/opinion/sunday/climate-change-nuclear-power.html

Conversation starter question: Does nuclear waste produce a significant amount of waste?

Quote: "Nuclear waste is compact — America's total from 60 years would fit in a Walmart — and is safely stored in concrete casks and pools, becoming less radioactive over time. After we have solved the more pressing challenge of climate change, we can either burn the waste as fuel in new types of reactors or bury it deep underground. It's a far easier environmental challenge than the world's enormous coal waste, routinely dumped near poor communities and often laden with toxic arsenic, mercury and lead that can last *forever*."

Gralla, F., Abson, D. J., Møller, A. P., Lang, D. J., & von Wehrden, H. (2017). Energy transitions and national development indicators: A global review of nuclear energy production. *Renewable and Sustainable Energy Reviews*, *70*, 1251–1265. https://doi.org/10.1016/j.rser.2016.12.026

Conversation starter question: What does switching to nuclear energy, as a country, require?

Quote: "Energy transition dynamics are influenced, by among other factors, the socioeconomic and environmental interactions within and between countries demanding several approaches to fill current knowledge gaps. Energy transitions can be undertaken in a few decades, but are dependent on, and potentially affect, key national socio-economic and environmental factors."

Ho, S. S., Looi, J., Chuah, A. S. F., Leong, A. D., & Pang, N. (2018). "I can live with nuclear energy if…": Exploring public perceptions of nuclear energy in Singapore. *Energy Policy, 120,* 436–447. https://doi.org/10.1016/j.enpol.2018.05.060

Conversation starter question: What are benefits of nuclear energy that are widely known to the public?

Quote: "…High reliability and efficiency of nuclear as an energy source, its environmental benefits, economic benefits, and the self-sufficiency it provides for energy production and electrical generation."

Tubb, K. (2019). *Opinion: Nuclear could be the clean energy source the world needs*. CNN. Retrieved from https://www.cnn.com/2019/09/16/perspectives/nuclear-energy-green-goals/index.html

Conversation starter question: Why is nuclear energy superior to other forms of renewable energy?

Quote: “A single nuclear reactor uses about 13 acres of land space per megawatt, compared to wind (71 acres), solar (44 acres) and hydro (315 acres). This includes land used for mining, transportation, transmission and storage. Put another way, a solar farm would need roughly 45 square miles of land to produce the same amount of electricity as an average nuclear power plant, and a wind energy farm would need roughly 260 square miles.”

3 videoclips:

TED (2010, June 10). *Debate: Does the world need nuclear energy?* [Video]. YouTube. Retrieved from https://www.youtube.com/watch?v=UK8ccWSZkic

This source shows how nuclear energy is far more efficient that solar and wind energy, and can often be used with solar and wind energy to produce a sufficient amount of energy.

Time stamp: 18:35-19:13

Discussion question: How can renewable energy be used constantly, without ever relying on nonrenewable sources?

TED (2017, November 17). *Why I changed my mind about nuclear power*. [Video]. YouTube. Retrieved from https://www.youtube.com/watch?v=ciStnd9Y2ak

This source analyzes how from air pollution alone, this causes 2 million deaths per year. This death toll is far greater than the total deaths that have occurred from nuclear energy.

Time stamp: 17:22-17:52

Discussion question: Does nuclear power, overall, cause more deaths than other sources of energy?

Vox (2017, May 17). *The fight to rethink (and reinvent) nuclear power*. [Video]. YouTube. Retrieved from https://www.youtube.com/watch?v=poPLSgbSO6k

This source dives deeply into the realization that newer nuclear powerplant processors are becoming more and more efficient that the older ones, which creates less overall waste for the nuclear power plant.

Time stamp: 3:19-3:31

Discussion question: Are the nuclear power plant processors wasteful?