

Homework 8 Solar Power for Africa
Due Monday October 16, 2023

This week we have discussed the grid.

- a) Explain the history of power distribution in Texas and how it led to the grid collapse in February 2021. What improvements are needed to prevent similar grid failures?
- b) Explain what happened in Columbus on June 13-16 2022.
- c) Explain what happened with Winter storm Elliot in December 23-26 2022.
- d) How does the grid need to be modified to accommodate the rapid adoption of electric cars? What benefit can electric cars have for the grid, considering commuters from the suburbs to the inner city.
- e) If you are currently paying 0.096 \$/kWh and your bill is \$200/month for electric, use the Apples to Apples comparison webpage mentioned by Sean Behm to find what you could pay for a fixed 12 month rate of 100% renewable electricity. How about if you didn't care about renewable?