# Lecture

* Nuclear has 6 orders of magnitude more fuel density than fossil fuels
* 92% capacity factor
* GW reactor is 300 solar panels and 400 turbines
* Most reactors designed at Argonne national lab
* Gen 4 very advanced compared to the ones around today
* Nuclear unit size is large, no factory fab, licensing is very long, not a high return product
  + Opposite of what we want
* We have already designed and demonstrated all the gen 4 reactors work
* SMR (50-300 MW) and Microreactor (1-50 MW)
* Safe because
  + Physics-limited core temp
  + Passive decay heat removal
  + Extremely thermally robust fuel
* TRISO is goated and swaggy
* Energy need keeps going up