e2: Coal and Nuclear

SALT audio

https://www.npr.org/templates/story/story.php?storyId=128127191

Coal and nuclear:

http://physics.hpa.edu/physics/apenvsci/videos/e2_videos/e2%20energy/6%20coal%2 0and%20nuclear.mp4

APES questions

- 1. Why a perfect storm?
- 2. When he says "our grandchildren" who does he mean to you?
- 3. Why a silver bullet? what is this reference?
- 4. What percentage of global energy is sustainable?
- 5. Why are coal and nuclear "two 800 lb gorillas"?
- 6. Wood to coal-why and when? why is it the 21st century energy source?
- 7. How has this changed since this video was created in 2008?
- 8. Coal plants: how often are new Chinese coal plants opened, how long will each one last?
- 9. Mercury, sulfur compounds-why and to whom do these impact?
- 10. Who does Mike Mudd represent? Is he telling the truth?
- 11. Jeffrey Sachs stresses testing-why? What have we found about carbon capture?
- 12. Carbon capture-why is it dangerous?
- 13. Why do you think the Montana folks want to promote carbon capture?
- 14. Susan Papalbo says we could capture CO2 for hundreds of years. If the cost of carbon capture makes coal even more expensive in competition with cheaper natural gas, do you think this will still go through?
- 15. For how many years could coal provide US energy?
- 16. 2100 mW for how many homes? How much for each home?
- 17. What does Dan Kammen think about carbon capture?
- 18. 1.8 million tons of CO2? for what time period?
- 19. Why does the pursuit of carbon capture slow development of greener solutions?
- 20. This video is from 2008, what has changed since then that dramatically changes

the scene to the use of coal for electricity?

- 21. Look up "Future Gen" the IGCC system and see how it worked out.
- 22. The coal guy says 2012 is when it should be running-what happened?
- 23. How much energy in the us is created by nuclear plants?
- 24. Jeffrey Sachs compares coal and nuclear-what does he think?
- 25. This video was done before Fukushima Daiichi in Japan. How has public opinion changed since then globally?
- 26. Why is a pebble bed reactor safer? How does it differ from a traditional reactor? (look this up)
- 27. How is the nuclear waste issue in a PBR differ?
- 28. What is NGNP?
- 29. What is the LEGO construction model?
- 30. Nuclear power plants cost many more times as much to decommission as to build. how does this impact investment?
- 31. How many permits for nuclear power have been approved in the last 30 years?
- 32. if you develop a solution for these, what will the impact of this be?
- 33. What is meant by an "Energy Portfolio"?
- 34. Why is Jeffrey Sachs an optimist? Are you part of his vision?

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