
Subject: : Conservation

Topic: : WINDMILLS II

Re: WINDMILLS II

Author: : fritz

Date: : 2009/12/23 16:36:47

URL:

I have to say--comparing the two pictures, I'll take the wind generators for looks. But if I wanna keep the beer cooler cold--I'll take the coal plant.

Looks like all water vapor to me--kinda hard to tell. If that is particulates issuing from the large chimney on the left, that's really bad. That stack though could be a chimney for a wet SO₂ scrubber for one or more boilers. The small chimneys in the fore could be abandoned and their flue gases re-directed through the scrubber. Wet scrubber chimneys issue water vapor with a temp of about 150F so the chimney is really a concrete shell with a fiberglass flue inside. Scrubbers usually remove up to 99% of the SO₂. Costs are high--about 1.7 billion for 3100mws and take upwards of 30mws (maybe more) of power to operate.

Nitrogen oxides (NO_x) can be removed several different ways. A popular method developed and installed in the early 90s was to retrofit boilers with overfire air burners which reduced NO_x 45 to 55%. More thorough removal of NO_x is with an SCR--selective catalytic converter--removes up to 99%. Capital costs for these are high as well but that's the deal. Clean air regs work. It just cost money which we will eventually pay.

I believe that the long term future of base load power lies with the nuke industry. Reactors have been developed (and ordered) that keep plants on line for longer periods of time and require shorter re-fueling outages. Coal plants are environmentally challenged--but many are much cleaner than they once were. And for now--they're necessary.

As far as the dams upstate--capital costs may outweigh the amount of mws they would produce. A bigger issue might be access to the grid--just guessing.