

Comparing 1,000 Megawatt Power Plants per year

Victor Connor 4/10/06
v.connor@insightbb.com

	Coal (52%)	Nuclear (20%)	Wind (0.5%)
Energy Input:	4,500,000 tons of coal 350,000 barrels of oil	19 tons enriched Uranium 250,000 tons of coal	the wind
Pollution: (during operation)	<ul style="list-style-type: none"> • 9,400,000 tons of carbon dioxide • 270,000 tons of scrubber sludge and ash for disposal • 12,000 tons of sulfur dioxide, nitrous oxides and mercury • 100 trillion BTU's of heat 	<ul style="list-style-type: none"> • 6 tons of spent fuel • Emissions of highly radioactive gases (400,000 Curies of Kr-85, 18,000 Curies of tritium) • 800,000 tons of Uranium ore tailings • 37 tons of depleted Uranium • 500,000 tons of greenhouse gas • 100 trillion BTU's of heat 	none
Water required:	10 billion gallons	13 billion gallons	none
Land usage:	350 + 270 acres for waste disposal + 1,000 acre lake	150 acres + 500 acres buffer zone+ 1,000 acre lake	270 acres + 630 acres for access roads
Building Cost:	\$3.3 billion	\$5.0 billion	\$4.3 billion
Annual Running Cost			
fuel:	\$110 million	\$100 million	\$0
labor:	\$18 million	\$80 million	\$23 million
health:	\$16 million	???	\$0
Cost per kWhour:	4 cents	12 cents	4 cents
Cost trend:	up	up	down
Full-time Employees:	150	690	190

References:

"Environmental Impact Statement for an Early Site Permit (ESP) at the Exelon ESP Site" publication and also

at www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1815/#pub-info

American Wind Energy Association at awea.org,

"Environmental Integrity Project Public Citizen's Congress Watch May 2004",

United States Environmental Protection Agency at www.epa.gov/air/clearskies/state/il.html,

Edison's Powerton Fact Sheet at www.edison.com/files/2005_factsheet_powerton.pdf,

"Mainstreaming Renewable Energy in the 21st Century" by Janet Swain

plus phone interviews with employees from Edison, Illinois EPA, Zilkha

DOCKETED
USNRC

November 21, 2006 (2:00pm)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Docket No. 52-007-ESP