

HARVARD LAW SCHOOL

Environmental Law Program POLICY INITIATIVE

POWER OVER THE U.S. Electric Grid

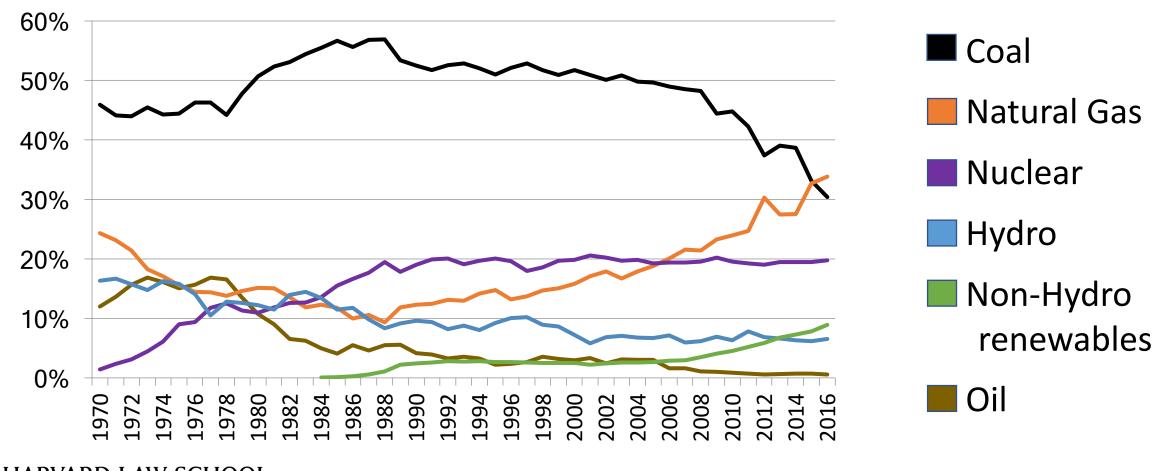
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What Powers the Grid?



HARVARD LAW SCHOOL ENVIRONMENTAL LAW Program POLICY INITIATIVE

Presentation Outline

- I. Why regulate electricity providers?
- II. Why did regulation used to be simple(r)?
- III. Why did regulation get legally complicated?
- IV. Who's in charge?
 - I. Zero Emission Credits in New York and Illinois
 - II. U.S. DOE's "Resiliency Pricing" Proposal



I. Why Regulate Electricity Providers?





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NEW YORK, SATURDAY, SEPTEMBER 17, 1927.

BIGGEST POWER POOL To serve 2 states

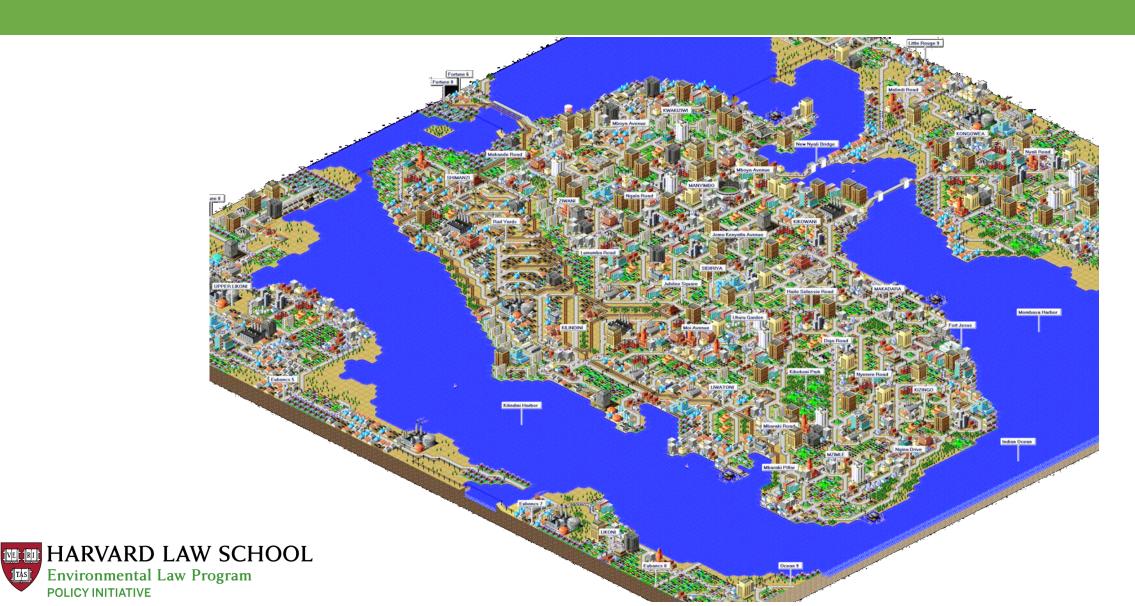
Three Utility Companies Form System for Pennsylvania and New Jersey.

TO BE IN OPERATION BY 1930

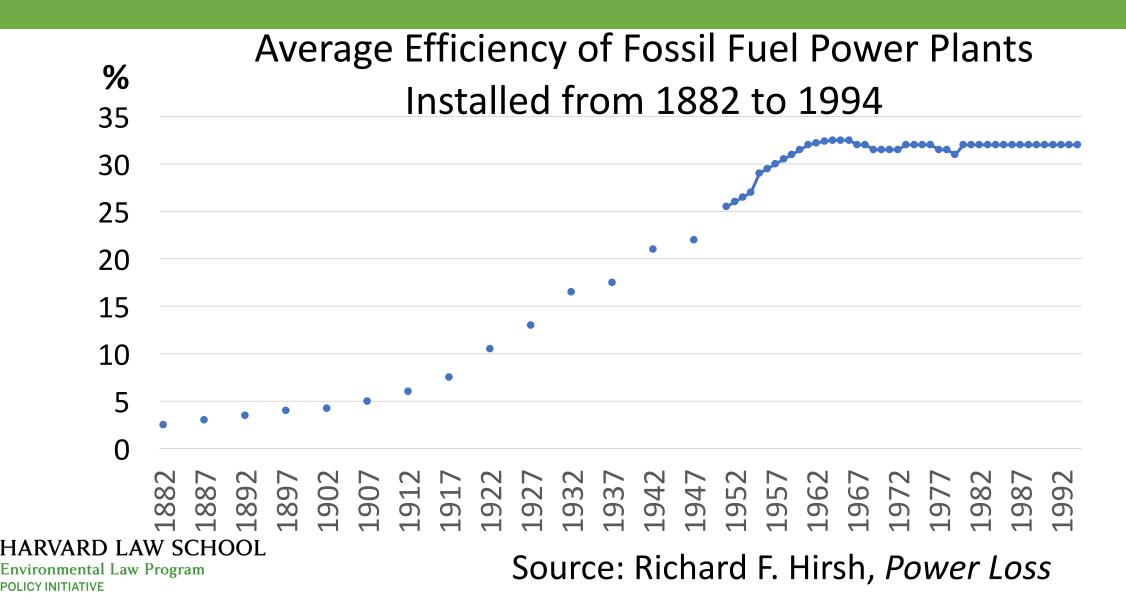
3 Transmission Lines Totaling 208 Miles to Cost \$26,000,000 ---New Plant at Conowingo.

HARVARD LAW SCHOOL Environmental Law Program POLICY INITIATIVE Formation of what is probably the world's largest electric power pool was announced yesterday. This latest and greatest of superpower systems will cover the industrial districts and main cities of New Jersey and, with the exception of PittsThe interconnection will make possible diversification, dependability, and concentration of power on an enormous scale. . . . The three companies in the superpower system are among the largest in the United States.

II. Why Did Regulation Used to be Simple(r)?

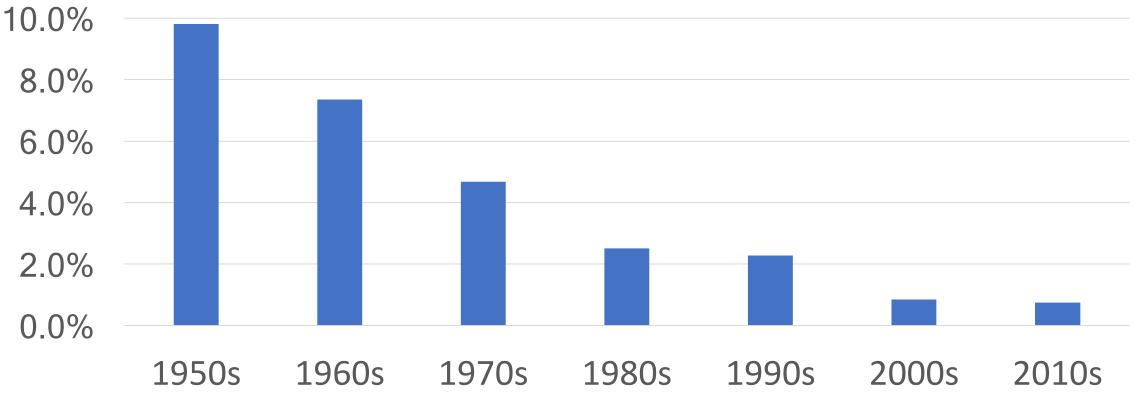


II. Why Did Regulation Used to be Simple(r)?

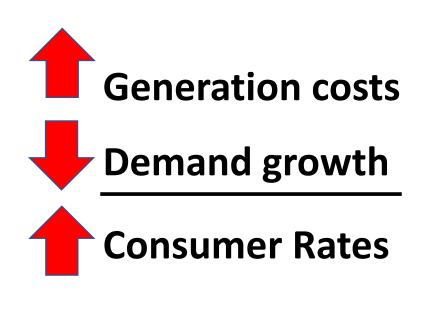


II. Why Did Regulation Used to be Simple(r)?

Annual Sales Growth











Shoreham Nuclear Plant, New York

- Cost \$6 billion
- 0 MWh produced

States react with new mandates and processes

 Integrated Resource Planning aims to pick an efficient portfolio of resources to meet consumer demand that considers:

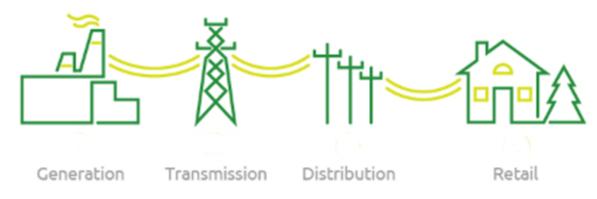


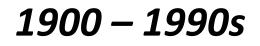
Building new plants Saving energy

Purchasing power



Vertically Integrated Utility



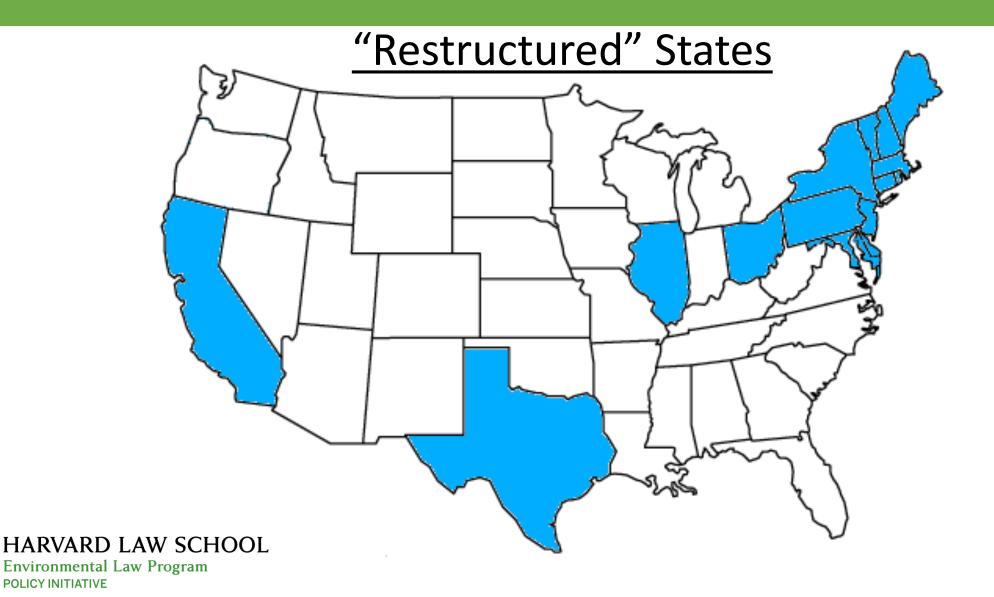


Wires-Only Utility



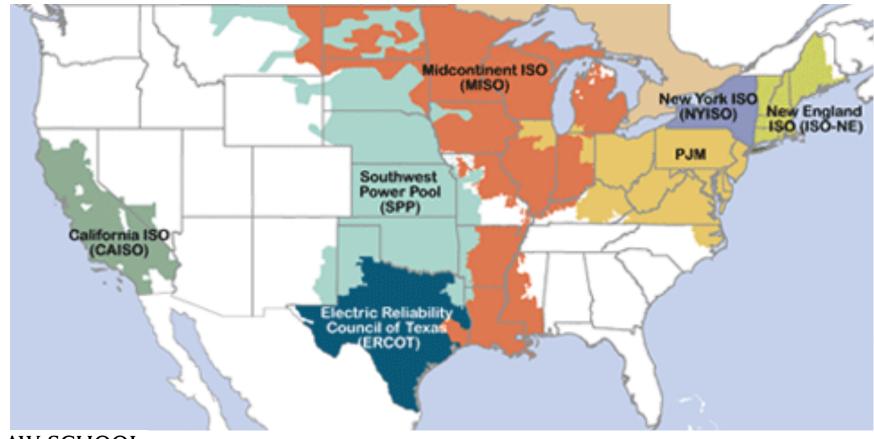
Post-Restructuring





VERI

FERC-Regulated Markets (except Texas)



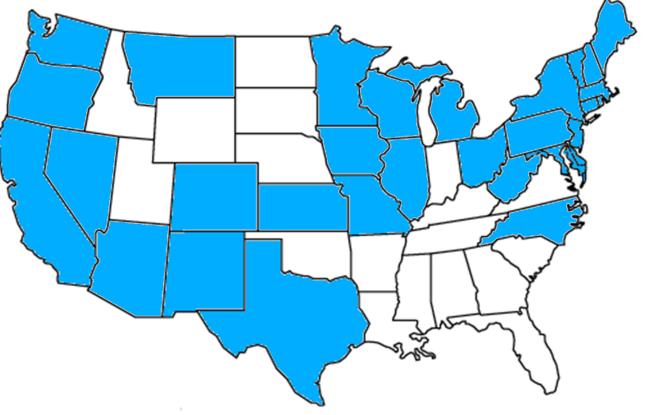


- Shift in industry economics
- Shift in Federal regulation from cost-of-service to market oversight
- Shift in State regulation of electric generation



State Policy Innovation:

• Energy Credit Programs (aka Renewable Portfolio Standards)





New York and Illinois Zero Emission Credits (ZECs)

- Allows state-selected nuclear generators to produce ZECs
- Requires utilities to purchase ZECs
- Pegs credit price to social cost of CO₂
- Adjusts credit price downward if wholesale rates go up



Legal Challenge: Do ZECs regulate FERC-jurisdictional wholesale sales in interstate commerce?

- May a state incentivize energy <u>production</u>, or would that necessarily regulate an energy <u>sale</u>?
- May a State reward avoided pollution?
 - May it dictate the price of that reward?
 - May that price be linked to a FERC-jurisdictional price?



ZECs are currently pending before the 2nd and 7th Circuits

- If ZECs are legal what are the consequences for markets?
- If ZECs are preempted how can states incentivize clean energy?



DOE's "Resiliency Pricing" Proposal

- Invokes rarely used authority under the law that created DOE
- Would provide coal and nuclear units in Eastern markets with cost-of-service regulation
- Asserts that these "fuel-secure" units improve the grid's "resilience" and are necessary for national security







- FERC-regulated market rules do not explicitly favor one fuel over another, but markets may value a resource's attributes, such as its ability to produce energy on demand, or to quickly change its output
- FERC rules very rarely explicitly target specific resource types





