Energy: Policy Behavior, Price & Shortages?

CE 5212

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Historical Cases

- WW II Energy Crisis
- 1973 Energy Crisis
- 1979 Energy Crisis
- California Power Shortages
- North East Blackout of 2003
- 2005
SSWII

- Conservation Efforts Began
- Fuel Rationing
- Car Pooling
- “Victory Speed”
- Windshield Stickers
When you ride ALONE you ride with Hitler!

Join a Car-Sharing Club TODAY!
When you ride ALONE you ride with bin Laden

What the Government SHOULD Be Telling Us to Help Fight the War on Terrorism

BILL MAHER
1973 Energy Crisis

- OPEC announces they will no longer export oil to countries that support Israel
- US oil production had been declining
- Demand raises leading to higher prices and long lines at gas pumps
- After the crisis, people returned to old habits
1979 Energy Crisis

- The Shah of Iran fled the country for political reasons and Ayatollah Khomeini replaced him
- Protests disrupted oil production
- OPEC increased production to make up for Iran.
- Panic ensued and lines appeared at gas stations
- Carter Administration began a campaign to deregulate oil and remove price controls installed after the 1973 crisis
- By 1991, all price controls were gone
California Energy Crisis

- 1996 - California Assembly voted to deregulate the electrical industry
- Power plants were sold to unregulated private companies and prices are set by the California Power Exchange – a nonprofit
- Transmission lines are controlled by the Independent System Operator – a nonprofit
- Utilities retain control of distribution networks
California Energy Crisis: Mistakes?

- Utility companies were forced to sell their generating plants and buy power at wholesale prices
- Utility companies were not allowed to pass on rate increases to customers
- No long-term rate agreements were allowed
- No policy was ever put in place to mediate temporary price spikes
California Energy Crisis: Policies?

- Should the government intervene in cases of shortages?
- Should the government place regional price caps on wholesale prices?
- Is electricity too important in today’s world to allow the free market to control prices?
- Other states will form their policies based on California’s experiences
North East Blackout

- Thursday, August 14, 2003 – Major power outages darken entire cities in the North East states and Canada.
- At 4:10 pm 21 power plants shut down
- Power had returned largely within 4-12 hours
- People remain orderly and cooperative
- There have been significantly larger outages throughout history
North East Blackout

- North American Electric Reliability Council (NERC) rules are voluntary and not enforceable
- Deregulation separated the ownership of transmission lines from power generators
- Transmission system can’t keep up with generators, and probably caused the blackout
- Over $500 million was estimated lost
North East Blackout Policies?

- High prices spurred the initial restructuring
- Should electrical service be vertically or horizontally structured? The deregulated, horizontal structure is largely to blame for the blackout
- Over $500 million was estimated lost, and millions more will be spent on policy analysis. Was any money actually saved by society as a whole?
New Orleans

- Hurricane Katrina damaged many offshore oil platforms and several oil pipelines.
- Scares of shortages cause 26 nations to release stored oil to make up for lost production in New Orleans.
- Temporary Solution
- Overall, Hurricane Katrina illustrated how vulnerable the US is to energy shortages.
Searching For Energy Independence

- Energy Independence would allow the United States to handle supply and demand issues locally, without involving foreign nations, giving local authorities over price, supply, and demand.
Searching For Energy Independence

- 1942 US Office of Price Administration freezes prices of everyday goods
- 1960 OPEC formed to unite middle-eastern countries
- 1973 Trans-Alaskan pipeline constructed
- 1973 Nixon imposed price controls of oil
- “Project Independence” sets goals to be energy independent by 1980.
Searching For Energy Independence

- 1973 Federal Energy Office created
- 1974 Federal Energy Administration created
- 1975 Ford set standards for automobile fuel efficiency
- 1977 Carter Creates the Department of Energy
- 1981 Reagan eliminates price controls of oil
1991 - Bush Sr. allocates money to research electric vehicles
1993 – Clinton funds research of a 3x more fuel efficient car
2003 – Bush Jr. proposes hydrogen powered “Freedom Car”
Searching For Energy Independence

- Ethanol
- Natural Gas
- Propane
- Hydrogen
- Biodiesel
- Electricity
- Methanol
- P-Series
Policy Questions Raised

- Is energy independence possible?
- Is energy independence worthwhile?
- How important is the environment relative to other issues?
- How could the government mandate conservation?
- Should the government mandate conservation?
- Should the government regulate energy prices or supplies?
- Should oil (natural gas, electricity) be deregulated? Are there different answers for different sources?