





Examining The Outlook On Deregulation

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McCullough Research
June 26, 2001



A satellite map of North America, showing the United States, Canada, and Mexico. The map is centered on the continent, with the Atlantic Ocean to the east and the Pacific Ocean to the west. The text and list are overlaid on the map.

Examining The Outlook

- Texas
- What has happened this week?
- Is There A Middle Ground?
- Will The Real National Energy Policy Stand Up?
- What Happened On May 22nd?
- Will We Return To A Bi-lateral Market?
- Who Is Making These Decisions Anyway?



A satellite map of North America, showing the United States and Mexico. The state of Texas is highlighted in a bright red color, making it stand out from the rest of the landmass. The word "Texas" is written in large, bold, red letters across the top of the state.

Texas

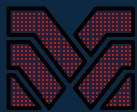
- High discounts -- 20% to 30% -- from year end prices
- Ercot computer models are still rocky
- Rules are too complicated -- too much of the infrastructure has been copied from California



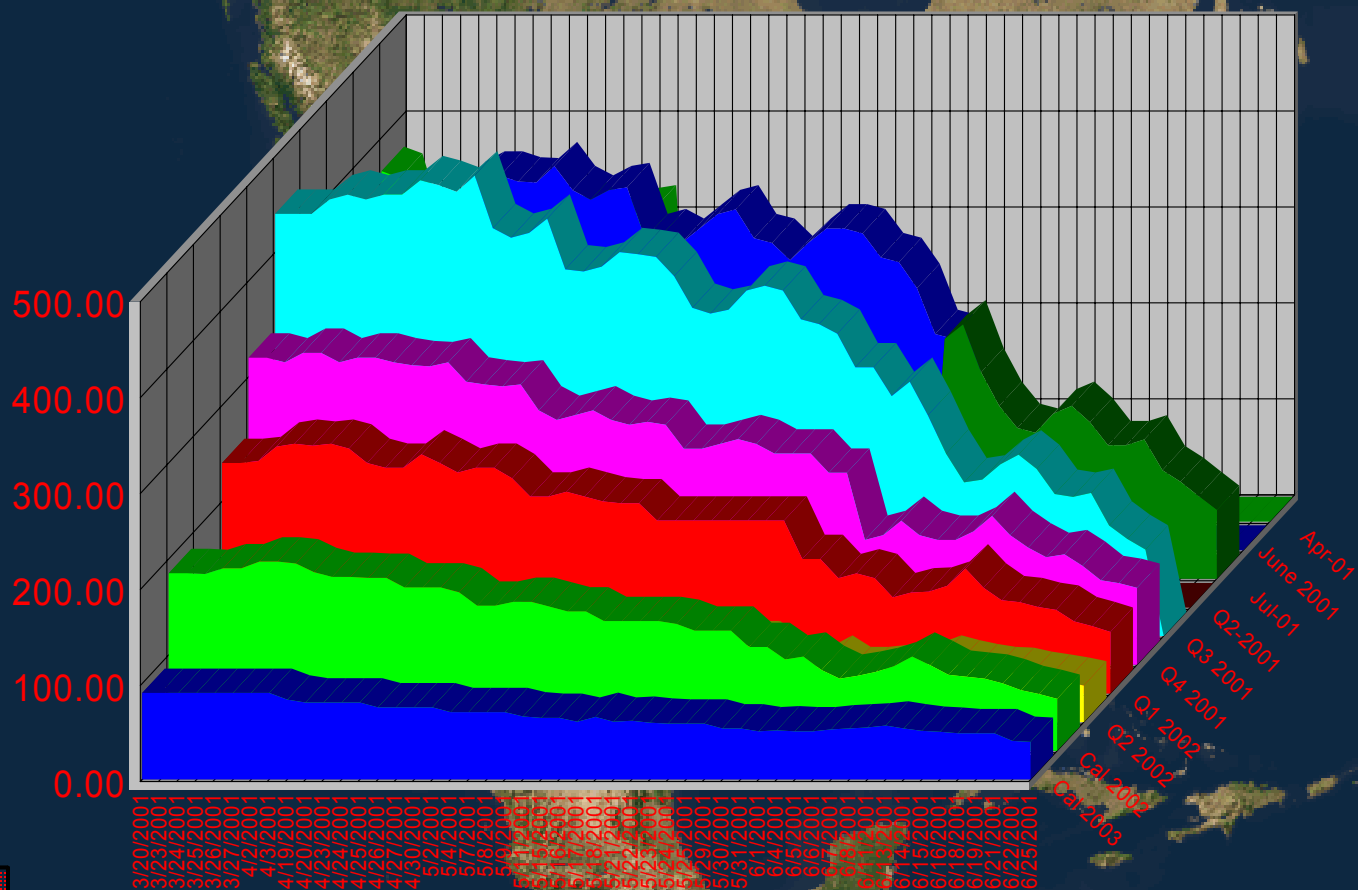
A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent dark blue grid. The title "What Happened This Week?" is written in large, bold, red letters across the top of the map.

What Happened This Week?

- Futures prices continued to crash
- FERC expanded their regulatory model to the rest of the U.S. WSCC
- California and the generators are discussing a refund and an apology

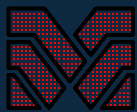


Futures Prices At Mid-C

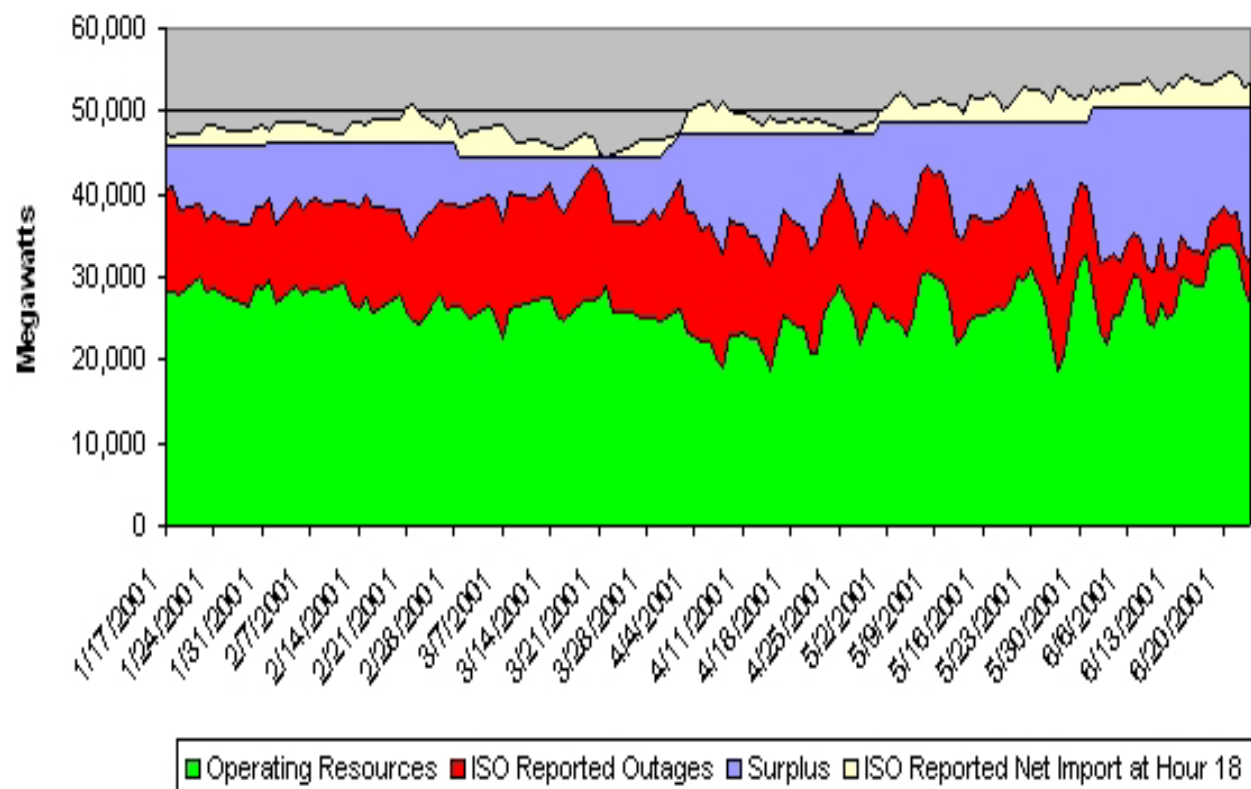


June 19, 2001 FERC Order

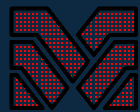
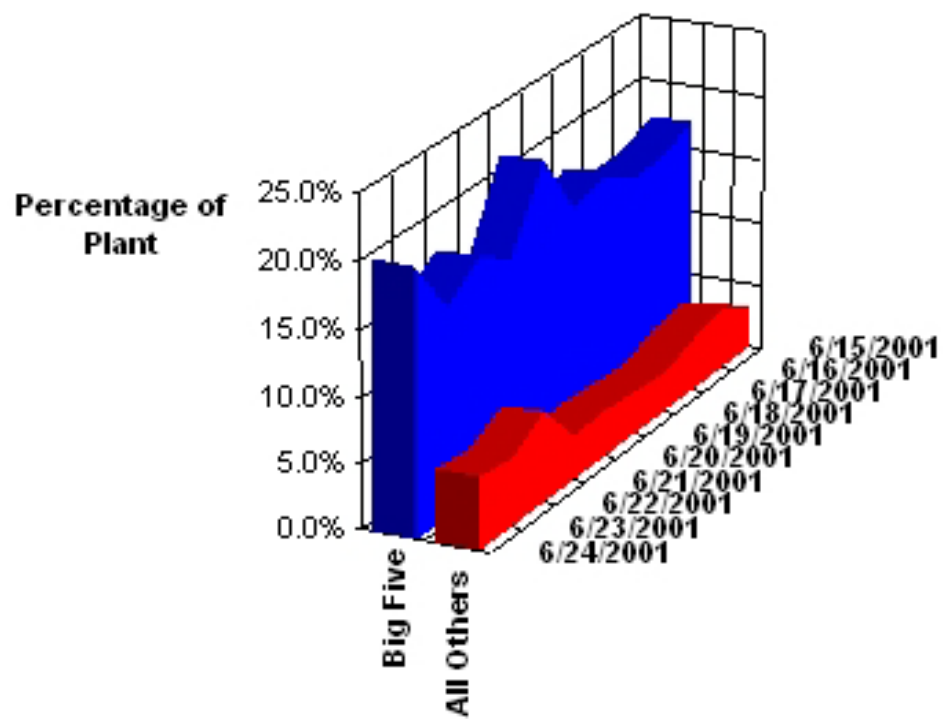
- FERC has extended its "proxy market" to the remainder of the U.S. WSCC
- Between Stage 1 Emergencies, the price cap is 85% of the previous level
- During Cal ISO emergencies, the price is equal to the price cap
- O&M has shifted to 6 mills
- NOx costs have been removed from the cap
- FERC still has little understanding of the loopholes



ISO Resource Details Since January 17th



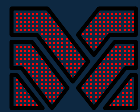
Percent of Capacity On Forced Or Planned Outage



A satellite map of North America, showing the United States, Canada, and Mexico. The map is centered on the continent, with the Atlantic Ocean to the east and the Pacific Ocean to the west. The text and list are overlaid on the map.

Is There A Middle Ground?

- Yes.
- The best approach has been recommended for some time now by Robert Michaels a professor at the University of California
- He recommends dropping "electric" deregulation and following the far simpler, proven, and more successful gas dereg model
- Electricity
- Natural Gas



A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent grid pattern. The title "A Little History" is written in red text on a dark rectangular background in the upper left. A bulleted list is on the left side, and a logo is in the bottom left corner.

A Little History

- The Problem In A Nutshell
- Changing Markets
- Established Special Interests
- Legislative Spaghetti



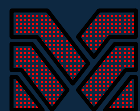
A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent dark blue rectangle containing the title and a list of bullet points.

The Problem In A Nutshell

- At the turn of the century Sam Insull invented trusts, utilities, stock manipulation, pyramiding of control, and the Securities and Exchange Commission
- He wrote the laws, established the Commissions, and founded the utilities
- Ultimately, he implemented a ninety year cost plus structure that left North America with the best (and most costly) electric infrastructure in the world



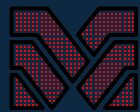
Our Founder - Sam Insull



A satellite map of North America, showing the United States, Canada, and Mexico. The map is centered on the continent, with the Atlantic Ocean to the east and the Pacific Ocean to the west. The title "Changing Markets" is overlaid on the map in a red, sans-serif font.

Changing Markets

- Jimmy Carter's 1979 law, the Public Utilities Regulatory Practices Act, allowed free entry into bulk power generation
- Competition quickly reduced the costs of generation by a factor of three
- The resulting measuring stick effect made traditional regulation look very expensive



A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent dark blue rectangle containing text.

Established Special Interests

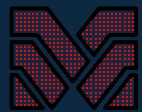
- Insull's regulatory scheme created a series of special interests
- None of these would exist in a normal market
- California is an extreme
 - Hispanic Energy League
 - Lesbian Wind Association
- Unfortunately, even more staid states have spawned numerous special interest groups from the Gray Panthers to Green Peace



A satellite map of North America, showing the United States, Canada, and Mexico. The map is dark blue, with landmasses in shades of green and brown. The title "Legislative Spaghetti" is overlaid in red text on a semi-transparent black box.

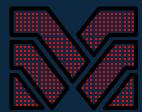
Legislative Spaghetti

- Each state has attempted to placate a variety of different groups
- Environmentalists have received largely symbolic funding for a variety of ultimately worthless pursuits
- Business has gotten some access
- Homeowners have gotten rate guarantees
- Utilities get market pricing guarantees
- The result in every state has been to bring far, far too many cooks into the kitchen



Is FERC Helping?

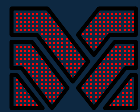
- Yes and No
- On the yes side, they fired the ISO Board in December
- On the no side, they eliminated and now have resuscitated the short term administered market
- They have asserted an authority they are unwilling to use
- For the April 26th order, the document reads better if you staple the dissent to the cover.
- On June 19th, FERC extended the order to the rest of the U.S. WSCC



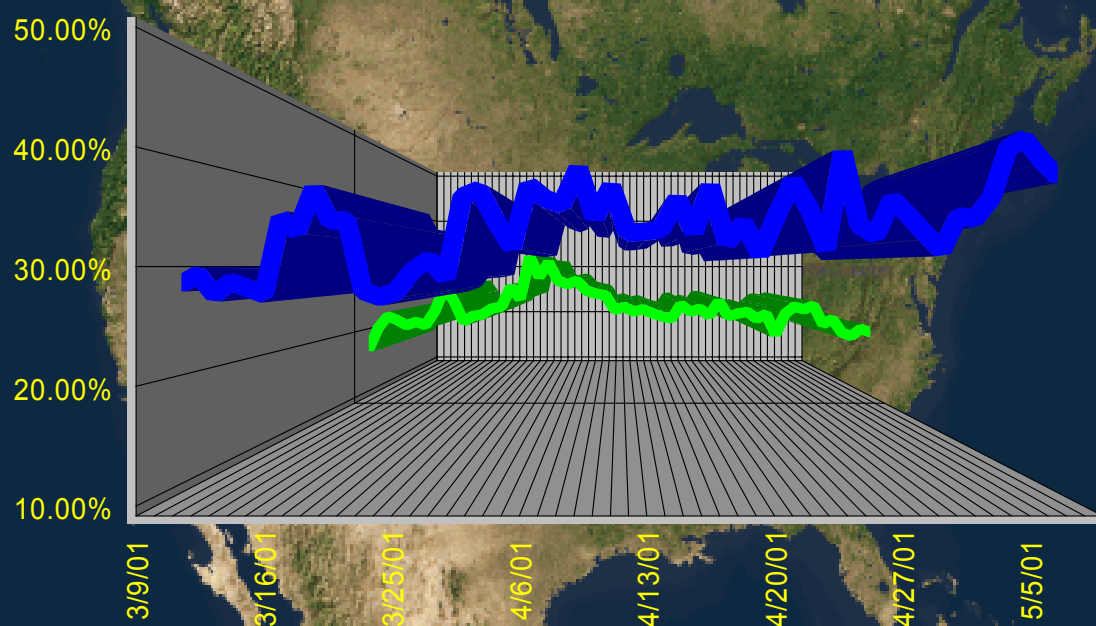
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Last Month's "Emergencies"

- May is a period of low loads in both electric resistance heating and cooling areas
- The California ISO announced blackouts several days last month
- The problem was not loads (as they announced) but outages



Relative Outages



■ Big Five ■ All Others



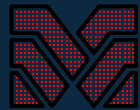
Villain and Victim



Professor Hogan:
Lucius N. Littauer
Professor of Public
Policy and
Administration at the
John F. Kennedy School
of Government, Harvard
University



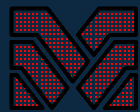
Professor Fessler:
Emeritus Professor of
Law
University of California
at Davis School of Law



A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent dark blue grid. The title "Villains and Victims" is written in large, bold, red letters across the top of the map.

Villains and Victims

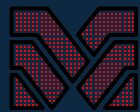
- Professor Hogan believes (to this day) that markets must be guided and managed by government
- Professor Fessler believes (he has been understandably silent since May 22nd) that prices cannot be measured accurately without Professor Hogan's mechanisms
- Their unfortunate common understanding of the world set California down the path to administered markets, mandated secrecy, inefficiency, and ultimately blackouts



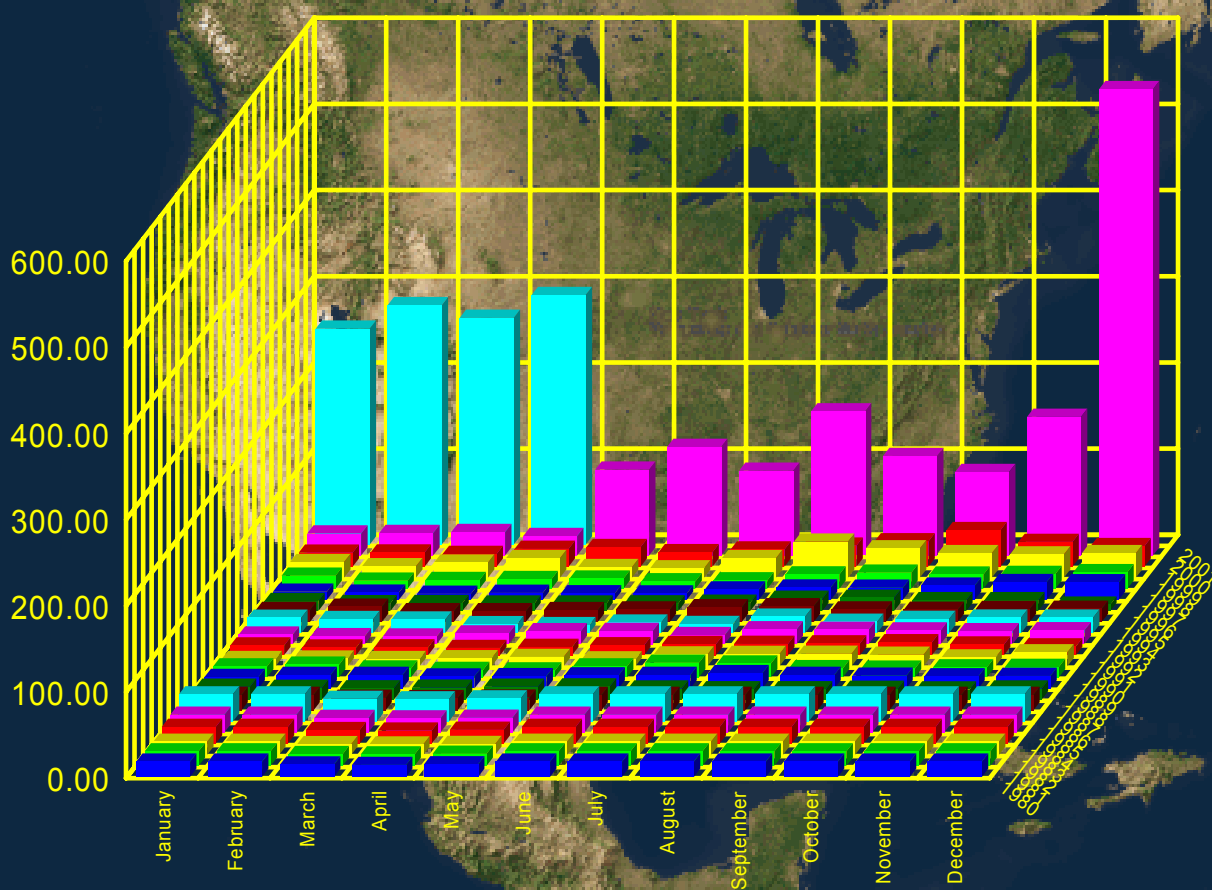
A satellite map of North America, showing the United States and Mexico, with a dark blue background. The map is centered on the continent, with the Atlantic Ocean to the east and the Pacific Ocean to the west.

Twenty Years of Efficient Markets

- Since 1980 the West Coast has enjoyed an active wholesale market
- FERC ratified the market in 1987
- California's deregulatory scheme was a step backwards from competition



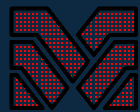
Twenty Years At Mid-Columbia

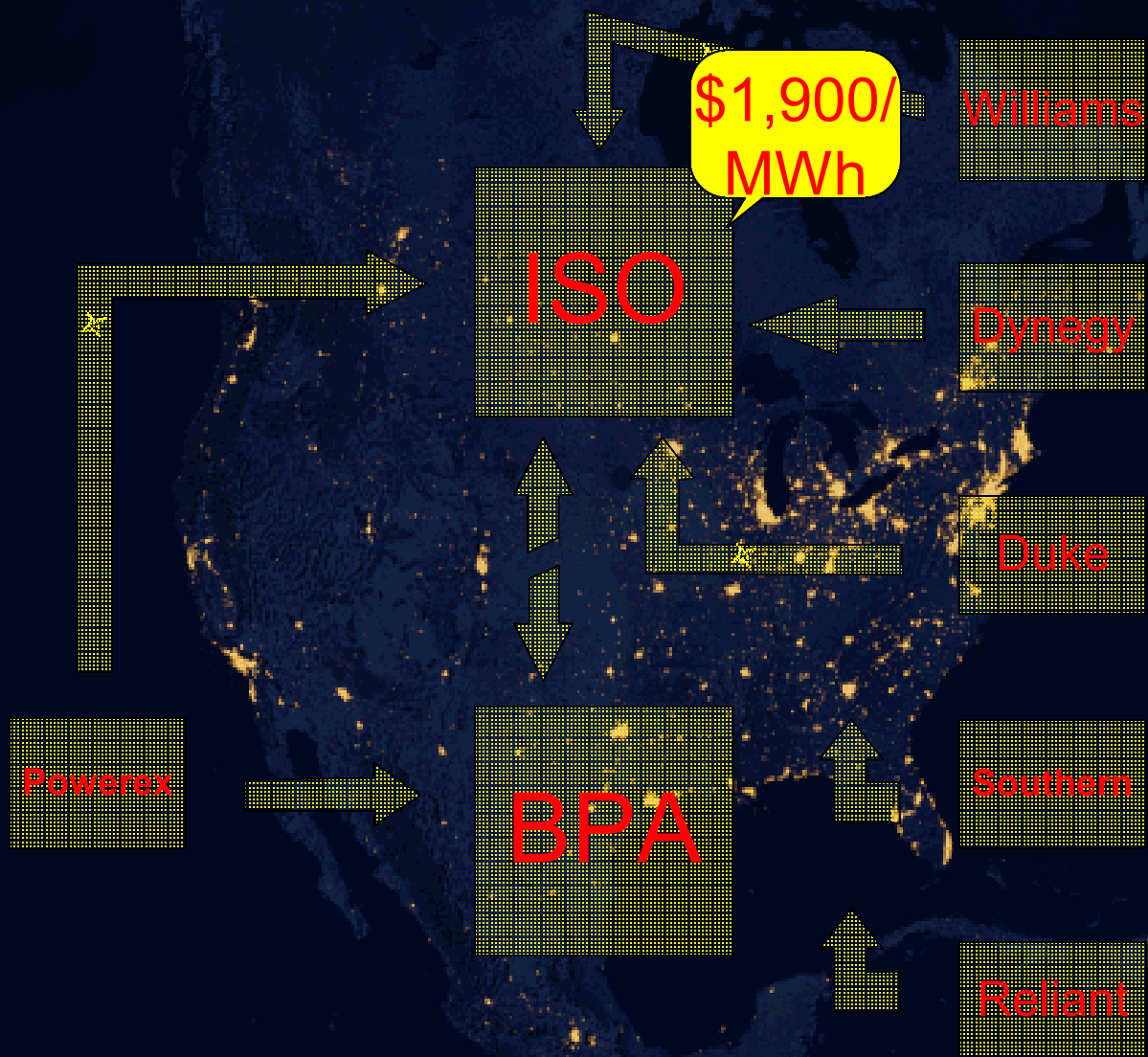


A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent dark blue rectangle containing text.

One Year of Inefficient Markets

- Since May the ISO has taken direct control of markets every few days
- Since November, the ISO has taken direct control almost every day
- The primary "market" if this term can be used is the bilateral daily negotiation between Williams, Dynegy, Reliant, Duke, and Southern
- The regional market has suffered from the massive level of governmental intervention

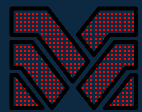




A satellite map of North America, showing the United States, Canada, and Mexico. The map is centered on the continent, with the Atlantic Ocean to the east and the Pacific Ocean to the west. The title "Natural Gas" is overlaid on the map in a red, bold font.

Natural Gas

- No centralized market
- Wholesale wheeling
- Access by state policy and customer willingness



Will The Real National Energy Policy Stand Up?

- The National Energy Plan
 - Not National
 - Only some forms of energy
 - The word "plan" needs to be looked up in the dictionary
- Facts are not the strong point of the plan



A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent grid pattern. The title and list are placed on dark rectangular backgrounds within the map area.

Harvard's Love of Governmental Intervention

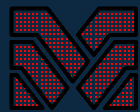
- AB-1890
- California's Structure
- The Role of Secrecy



A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent dark blue grid. The title "AB-1890" is centered in the upper half of the map.

AB-1890

- AB-1890 was neither engineered nor inspired -- it was a disaster designed by a committee
- The primary plan was the creation of two new state agencies -- the ISO and the PX -- to administer California markets
- Customer choice was an early and inadvertent casualty -- eliminated by the formulas designed to recover stranded costs



California's Structure



Prices



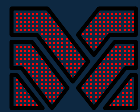
The Role of Secrecy

- Secrecy was a central tenet of the California experiment
- The logic was that cost recovery required "transparent" pricing (Dan Fessler), "transparent" pricing required administered markets (Bill Hogan), the absence of competitors required secrecy of bids and outcomes
- The result was that market manipulation and management failure became obscured by the mantle of competition embracing secrecy
- Simply stated, secrecy in areas of central public policy importance is neither required nor desirable
- Increased secrecy will bring additional government controls in order to avoid widespread blackouts

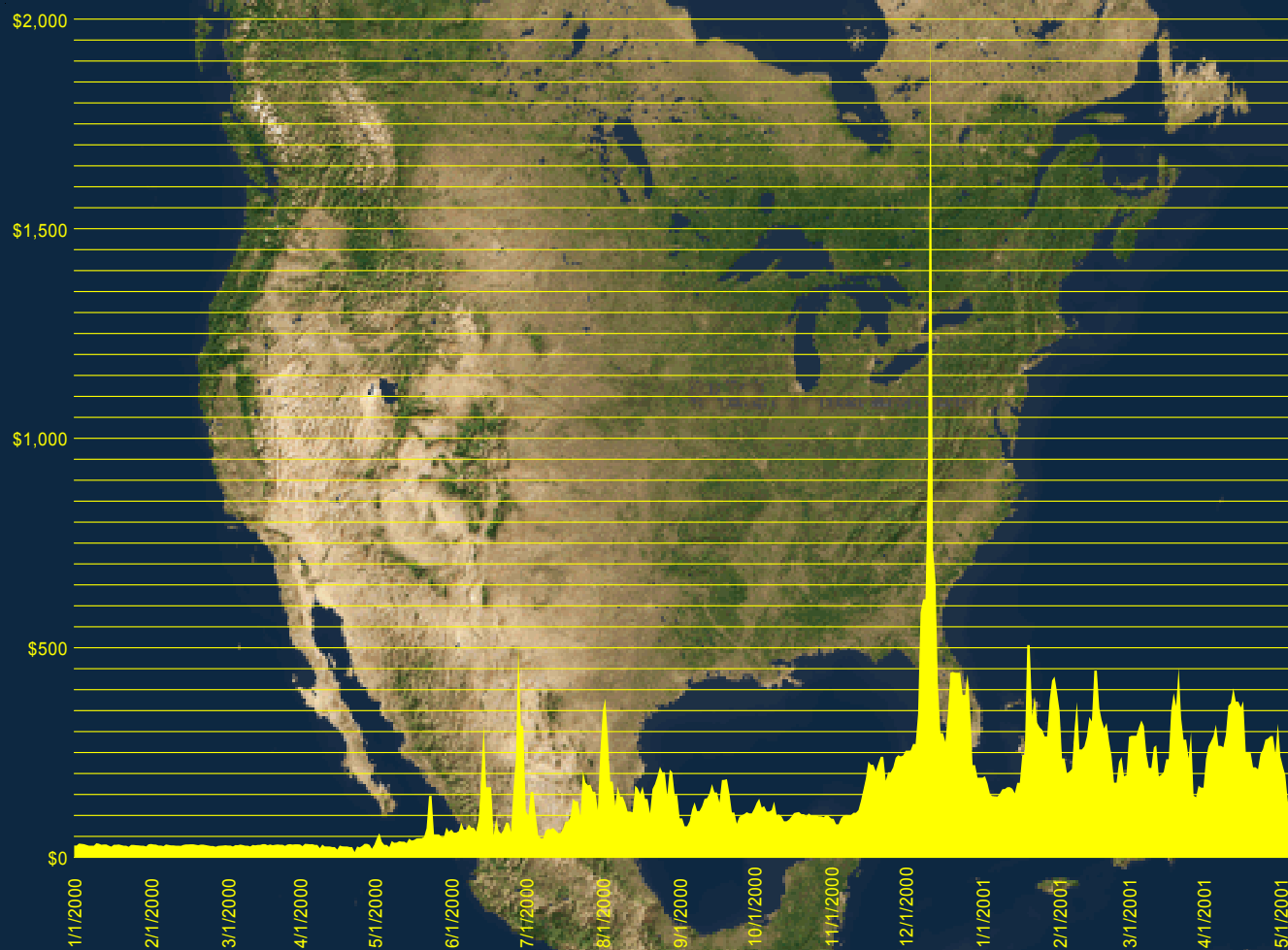


What Happened On May 22nd?

- With the benefit of hindsight we now know that administered prices rewarded a massive exercise of market power
- ISO emergency purchasing set the price of energy for the following year
- Without the PX and the ISO, none of this would have ever happened



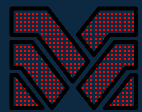
Current Prices



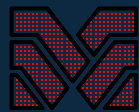
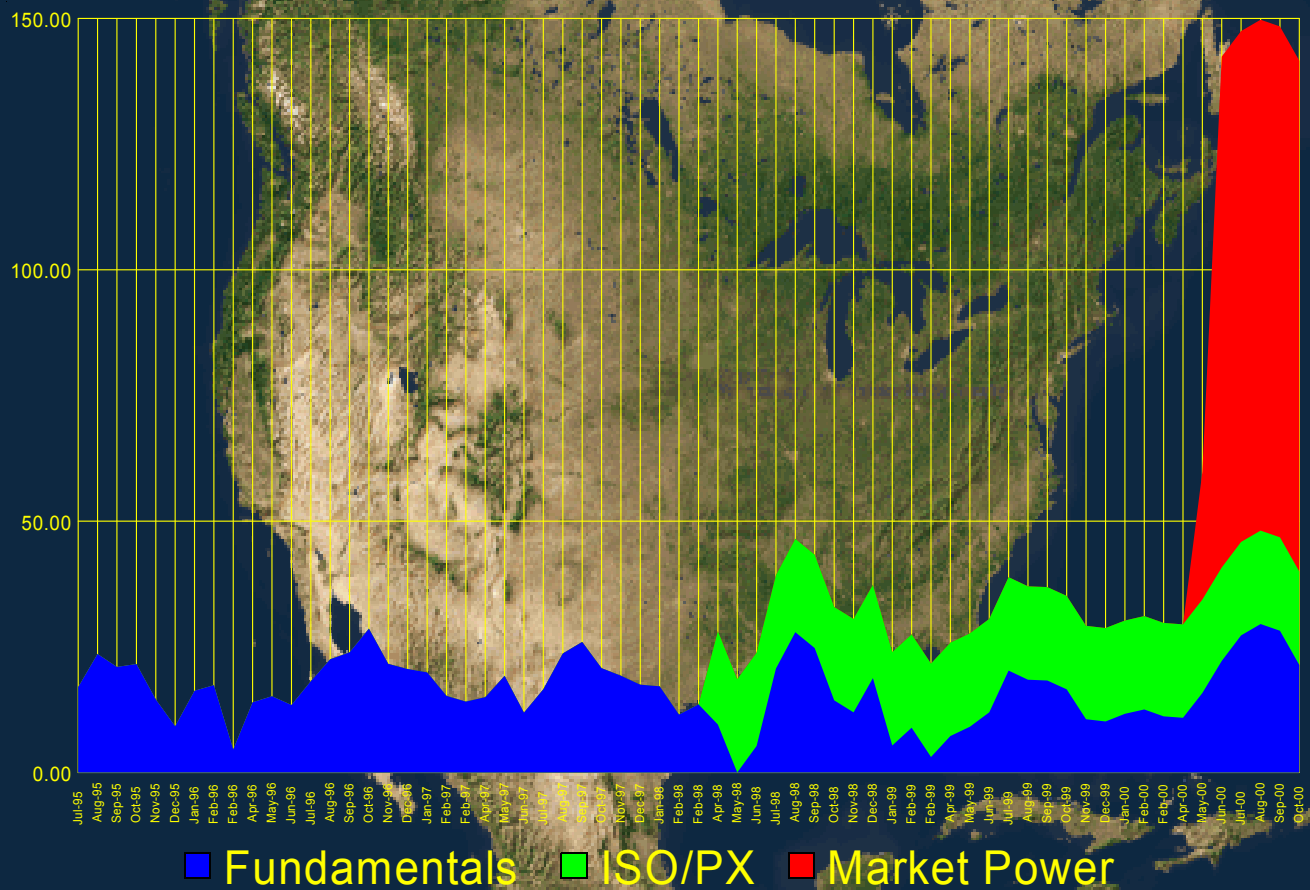
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Calculated Refunds

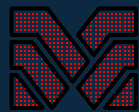
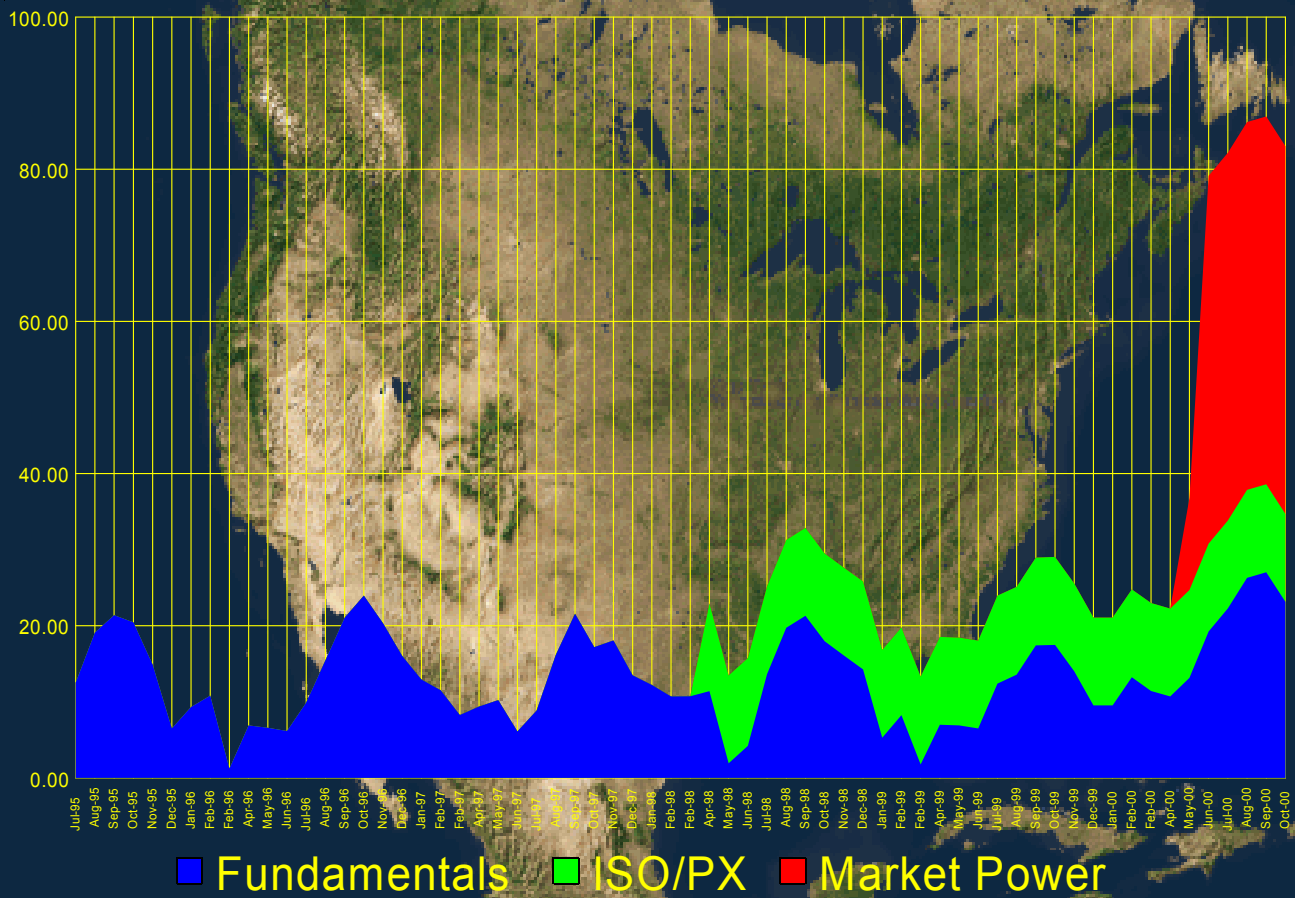
- On-Peak: 101.6 mills +/- 23.2 Mills
- Off-Peak: 48.4 mills +/- 11.6 Mills
- Refunds appropriate from May 22nd through October 31st
- Additional data will continue to refine estimates on a month by month basis



On-Peak Price Impacts



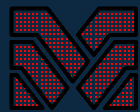
Off-Peak Price Impacts



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Will We Return To A Bi-lateral Market?

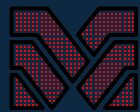
- The current trend is for increasing regulatory intervention
- A triumph of theory over practice
- Cost without benefit



A satellite map of North America, showing the United States, Canada, and Mexico. The map is overlaid with a semi-transparent grid pattern. The title "The Current Trend" is written in red text across the top of the map.

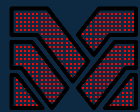
The Current Trend

- Recent FERC orders have continued to replace markets with mandated solutions
- Clearly, seeking markets through regulation is a difficult, if not impossible, path
- FERC's desire to replace 888 solutions with mandated ISO and RTO mechanisms regardless of the cost imply a step back to the 70s



A Triumph of Theory Over Practice

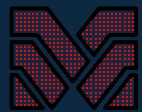
- The California experiment now explicitly derates almost 7,000 MW of generation
- California's ISO routinely ships power to the wrong locations using the wrong routes, misdispatches plants, and fails to refill pumped storage units -- even during emergencies
- After management failures, they classify the facts to protect "competition"
- Bringing the Third World to town



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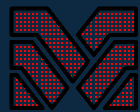
Cost Without Benefit

- The moral of the California crisis has been that we can pay more for little or no benefit
- High prices have been taken as proof positive of deficit against all evidence and common sense
- Cost plus goldplating may soon be seen as inexpensive when compared to regulatory imitations of competition



Who Is Making These Decisions Anyway?

- FERC
 - Hebert
 - Massey
- DOE?
- The New Bureaucracies
 - California ISO
 - ERCOT
 - New England



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