

The CAEM Story

**Celebrating Five Years of
Opening Minds to
Changing Energy Markets and
Changing Minds to
Open Energy Markets**



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www.caem.org

Setting the Stage

Our decision about energy will test the character of the American people and the ability of the President and the Congress to govern. This difficult effort will be the ‘moral equivalent of war.’

So said Jimmy Carter in a nationally televised speech on April 18, 1977. This dramatic moment was foreshadowed by a decision made on October 17, 1973—a decision that changed geopolitics forever. OPEC decided to use oil as a weapon. Oil prices became volatile, thrusting the U.S. economy into cycles of chaos and prosperity. Wars were fought over access to oil.

Thus set in motion the cascading dominoes that embroiled the United States, indeed the world, in a seemingly insoluble debate about energy policy: *How much government; how much reliance on markets?*

Truth be told, the track record has been dismal. Every administration since 1973 has grappled with volatile oil prices and the implications of oil prices for energy policy. Some have fared better than others. But because of the unique juncture of policy, prosperity, consumer demand, federalism, environment, and other factors behind it, the energy policy debate has been compelling for more than 30 years.

An icon no less than Milton Friedman observed in *Free to Choose* that the price of pencils is affected by world oil prices. If the price of oil rises, more consumers will burn wood for heating to avoid high heating oil prices, and this will put upward pressure on wood. Higher prices for wood will result in higher priced pencils (and also, by substitution, greater use of pens).

Command-and-control prices for goods that compete with oil are irrational when oil markets are volatile. Just as the market for pencils would be distorted if pencil prices could not fluctuate with changes in competitive inputs,



so also are natural gas and electricity markets distorted when they cannot respond to changes in markets of competing goods.

So was laid the foundation for the revolution in natural gas markets. Most now agree that the restructuring of natural gas markets over the last 20 years has been a resounding and unqualified success. (Our own study has estimated that consumers received more than \$600 billion in benefits from gas restructuring.)

We take the modern gas industry largely for granted. It seems little remembered these days how much crisis the gas markets were in during the 1980s.

There was a serious debate in Congress about whether the phased deregulation scheduled to take place on January 1, 1985, under the Natural Gas Policy Act of 1978 would result in a fly-up of gas prices and thus whether phased gas deregulation should be reconsidered. The Fuel Use Act of 1978 prohibited the use of natural gas in electric generation. You still needed a certificate to import gas from Canada. There was still a genuine debate as to whether natural gas resources were plentiful or in short supply. Policy relating to marketer access to pipelines was in a state of turmoil, to put it nicely. Take-or-pay debates were common. Major companies were bankrupt or teetered on bankruptcy. Many states still had moratoria on new hookups.

The Federal Energy Regulatory Commission took a series of market-oriented actions between 1983 and 1992 that gave us the modern gas industry. (They were not a moment too soon. Where would we be today if we still could not use gas in electric generation?) In 1989, Congress accommodated FERC's world-view with a plan for wellhead decontrol, after earlier eliminating the consumption constraints of the Fuel Use Act.

Prior to 1992 and the issuance of Order 636, the gas industry was generally regarded as chaotic and crisis ridden. After 1992, the industry was increasingly regarded as an efficient, innovative, technology-rich, modern industry. Indeed, it is not too much a stretch to argue that the revolution in gas markets was one of the most profound success stories in network restructuring, energy policy, and government reform.

Some argue that today's volatile gas prices are an indication of failure. On the contrary, they are an indication of success. Few disagree that prices are driven by the need to balance supply and demand. Balancing supply and demand is the key characteristic of competitive markets, and that was the reason for the reform of gas policy. The success of natural gas reform convincingly demonstrated the potential that relying on market forces could have for the nation.

An Idea Becomes Reality



In early 1999, several energy visionaries had an insight. Gas reform worked well. Reform in the electricity industry was shaping up to be a disaster. Something was missing.

Major policy issues are usually analyzed by competing think tanks. Yet Heritage, the American Enterprise Institute, Brookings, and Cato were asleep at the switch. They contributed a few big pieces but were not engaged on the front lines. They did not deign to attend meetings or provide detailed recommendations on how to get us from the monopoly model to the competitive model. They were into telecommunications and environmental policy but not public utility restructuring.

Yet technological change and market-oriented policy reform were having huge impacts on energy markets, both domestically and globally. Somebody needed to help consumers, public policy makers, and businesses understand these impacts and then guide the development of competitive markets.

We needed a specialized think tank to support competitive energy markets.

That need was met on July 1, 1999, when the **Center for the Advancement of Energy Markets** (CAEM, pronounced “kay-em”) began operations as a nonprofit organization. Its mission:

- Chronicle and understand changes in global energy markets transformed by technology and policy change;
- Develop a vision for changing energy markets;
- Identify opportunities for executing that vision;
- Encourage key public policy, consumer, and corporate decision makers to seize opportunities to realize the vision.

Founder and CEO Ken Malloy set out the challenge in the first paragraph of the CAEM’s initial business plan:

Experience in the US in the last year and globally over the past several years suggests that the transformation to competitive markets will be chaotic, difficult, controversial, and dominated by entrenched interests.

This was before California, Enron, or the blackout. *Even we were surprised at how right we were!*

Almost immediately, the industry trade publication *Public Utilities Fortnightly* recognized CAEM's potential by naming us as one of five "Energy Innovators" who could "change the face of electricity forever."

Since then, our activities have shared a common theme: discovering consumer, business, and environmental advantage in energy markets transformed by technology and competition. We've focused particularly on the electricity and gas markets, wholesale and retail, but we also believe that there are opportunities to gain insight by cutting across industry sectors, including energy, telecommunications, water, and other network industries.

CAEM is not a trade association, a consulting firm, or a lobbying group. It is primarily an independent, Washington-based think tank developing intellectual capital and community for the energy competition movement. This commemorative booklet presents the highlights of our first five years and provides a brief look to the future as we add development of strategy and institutions to support energy restructuring to our accomplishments.

Establishing a Presence

In our first 18 months, we invested a lot of time establishing a public presence. CAEM presented its vision of restructured markets at numerous meetings and conferences, including the prestigious World Forum on Energy Regulation, and to organizations such as the National Association of Regulatory Utility Commissioners (NARUC), the California Public Utility Commission, the Canadian Energy Association, the Federal Trade Commission, and the U.S. Department of Energy.

Our testimony before the Alabama Public Service Commission at the request of the state Attorney General's office was quoted in the *Mobile Register*:

"If Alabama Power Co. is deregulated, new suppliers will compete for its customers, offering innovations ranging from in-home power plants to natural gas powered air conditioners to ideas that people can't even imagine today" ... [CAEM] strongly applauded the national deregulation of wholesale natural gas more than a decade ago.

CAEM's work to establish itself paid off, as two appearances on *CNN*, an appearance on *PBS's Nightly Business Report*, interviews for *Time* magazine and *MSNBC*, and a full page spread in *USA Today* attest.

But while it may have been the best of times for our new organization, it was the worst of times for competition. The media primarily sought us to comment on the ongoing crises of Enron's collapse and California, where

officials scrambled to avoid rolling blackouts and an independent audit accused utilities of ignoring months of warnings amid accusations of wrongdoing by generators and marketers.

CAEM used its newfound platform to defend the competition movement. From *Time*:

“In all fairness, we’re only in the Henry Ford days of the car,” says Ken Malloy, CEO of the Center for the Advancement of Energy Markets, a pro-deregulation think tank. Malloy and others argue that the California fiasco isn’t an indictment of electricity deregulation in general but rather an invaluable lesson in how not to do it.

If nothing else, the California and Enron crises validated our original strategic insight: there is a need for an organization like CAEM to conduct analysis and get the message out.

First Principles: Why Competitive Electricity Markets?

Why should we care about policies favoring electric competition? There are five reasons to transition from the monopoly model to the competitive model.

Freedom and Choice

The central tension of the 20th century was central planning versus capitalism. Wars have been fought to preserve and enhance freedom and choice. Completely apart from any other benefits, there is a philosophical principle that freedom and choice should be preferred over coercion and monopoly. The fall of the Berlin Wall is a graphic symbol of the triumph of markets.

Rational Economic Decisions

Consumers respond rationally to the signals they see regarding prices and consumption. Monopoly regulation sends consumers distorted price signals that lead them to take economically irrational actions: they overconsume in the peak, they underconsume in the off peak, they prefer consumption to conservation, they choose one technology over another, and so on.

Notice that the goal is not lower prices but rather to set “right prices,” prices consistent with achieving supply and demand equilibrium. There is no doubt that as markets adjust to competitive forces, some customers will pay lower prices, though it is difficult to fully understand in advance all these adjustments. Some customers will pay higher prices. Overall, however, average prices will likely be lower because facilities will be used more efficiently. But it is a mistake to argue that all prices, at all times, for all purposes, for all customers will be lower.

Innovation in Products and Services

Today's U.S. consumer is very different from consumers of the past. Consumers are increasingly affluent; computer-savvy; lead more complex, specialized lives; have more options for the use of their time; and are very busy. Consumers will demand flowing content services for their homes and businesses consistent with their lifestyle choices. We don't drive the cheapest cars or use the cheapest computer, so why do we necessarily want the cheapest flowing content products and services?

How much longer will consumers be satisfied with flowing content services provided by monopolists that are simply not likely to be at the top of the class when it comes to innovation?

Modernization and Technology Deployment

Regulation retards effective technological deployment; markets enhance it. Regulated monopolies are beholden to the entity that sets the rate of return. Technology deployment thus gets caught up in the political process, with almost uniformly sorry results. As part of the response to

the oil crisis, the National Energy Act of 1978 set us on a course of relying on the so-called three-legged stool of coal, conservation, and nuclear. This seems pretty silly in hindsight. Government making wise technology choices is an oxymoron. Regulation stunts deployment of new technology by making regulators and



utility executives risk averse, by blessing the wrong technologies for political reasons, and by rewarding failure. Markets are impersonal, support calculated risk, and reward effective entrepreneurship in technology deployment.

Environment

While transitioning from monopoly to competition may have crosscutting impacts on the environment (maybe coal and nuclear plants will be used more intensively), the environment will undoubtedly be improved because of competitive electricity markets. The most profound environ-

mental impact will be that consumers will have greater incentives to purchase energy-efficient products in order to avoid peak prices. Additionally, there will be less need for generation facilities as consumers seek to consume less at the peak.

Overall, it can be expected that all energy facilities will be used more efficiently, thus negating the need for some new facilities otherwise built under regulation. Some consumers have shown a propensity to purchase green products to support their lifestyle choices. Most important, however, if dramatic changes in environmental policy necessitate changes in the energy production, consumption, and delivery industries, you can bet that a flexible, responsive, innovative industry structure will accommodate such changes better than the alternative.

Developing Intellectual Capital



CAEM's primary responsibility is to create intellectual capital that analyzes issues that are vital to progress in competitive energy markets. We have been highly successful in meeting this responsibility.

The RED Index

In 1999, CAEM developed and published the first edition of what has become its signature product, the **Retail Energy Deregulation (RED) Index**. The RED Index is in effect a report card on the progress that states are making in implementing policies that would result in robust markets for retail energy services and products. But it also contains a detailed methodology describing the criteria used to determine the rankings, a wealth of data on each state, and an executive summary that serves as an annual recap of the restructuring movement. The RED Index is the only quantitative and qualitative tool of its kind; as such, it has been used by regulators, companies, students, faculty, and the media, among others, around the world.

In the aftermath of the California crisis, many news and public-interest organizations wanted an objective tool to help put the state of competition in perspective. And because it is a unique analytical product that has no competitors, the RED Index became that tool. It has been cited in hundreds of news reports as the authoritative measure of progress on electric restructuring.

Charlotte LeGates, writing for Energy.com:

From the Super Bowl to the Pillsbury Bake-Off, Americans love contests. So it's not surprising that, when the Center for the Advancement of Energy Markets issued its Retail Energy Deregulation Index, people took notice.

On February 1, 2000, [USA Today](#) ran a full page prominently featuring CAEM and the RED Index. The article included the RED Index scores and a summary of progress in those states with restructuring programs in place.

We found that states scoring well in the RED Index like to brag about their standing. Over the years the [New York](#), [Pennsylvania](#), [Texas](#), and [Maryland](#) utility commissions

have issued press releases on their RED Index rankings and Pennsylvania *Governor Tom Ridge* cited his state's RED Index ranking in his final address of the state.

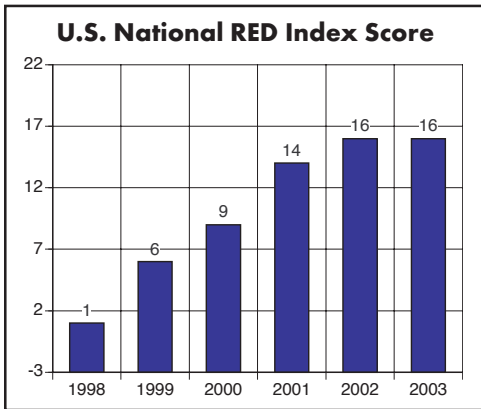
Over the years, we have made the RED Index an even more robust comparative tool by adding the Canadian provinces, Australian states, New Zealand, and the United

Kingdom to the study. We are currently working with a panel of interested public and private sector representatives to refine the RED Index methodology in preparation for the next edition of the report, and the RED Index for natural gas is in development.

Working with NARUC

In 1999, the National Association of Regulatory Utility Commissioners (NARUC) asked CAEM to support them in understanding the utility industry's consensus-building process to develop [standardized business practices](#). This year-long project, which was funded through NARUC by the U.S. Department of Energy, included workshops, stakeholder opinion surveys, a comparative analysis of standard practices in five states, and presentations to NARUC committees.

Later in 2000, NARUC and the Department of Energy agreed to let CAEM organize a conference on standardization issues. The [North American Energy Restructuring Summit](#) was held in Dallas in the fall that year and was a substantive success in terms of topics and speakers.



FTC Comments

Congressman Billy Tauzin, Chairman of the House Energy Committee, tasked the Federal Trade Commission (FTC) to do a [study](#) of the benefits to date of electricity restructuring. The FTC asked for comments on its study. The impressive set of comments filed by CAEM was drafted by Phil Marston, a CAEM Scholar who was one of the architects of gas restructuring at FERC in the 1980s. The FTC used our comments a number of times in their report.

Critical Mass Develops

In September 2000, Jamie Wimberly joined CAEM as President, bringing expertise in the consumer and environmental areas, as well as prodigious experience in fundraising. With a first-rate leadership team in place, a network of talented scholars and fellows, a strong board of directors, and a proven reputation, CAEM was positioned to move into the new century.

DISCO of the Future

The [Distribution Company \(DISCO\) of the Future Forum](#) was the first of our “consensus forums,” where we bring together corporate, public sector, and public interest representatives over a period of time, usually a year, to develop a consensus and recommendations on an important issue. The goal was to examine and critique the traditional regulatory model for distribution service as compared with the pure DISCO model. About 50 organizations participated in plenary sessions, and committees worked to develop white papers between the meetings. At the end of the process, a major report was issued. The report contained a number of policy recommendations that form the basis for revising old regulations or, if appropriate, promulgating new regulations and standards pertaining to the DISCO of the future.

Jamie Wimberly at the news conference announcing the report:

Distribution companies are facing growing uncertainty and risk. On the other hand, a number of opportunities are arising for these companies. The forum thoroughly examined the issues and challenges facing distribution companies, and its recommendations will ensure healthy companies and happy customers in the future. There is no question much more needs to be discussed and debated, particularly the role of the regulated utility in the provision of new product offerings and services, but the report is a substantial achievement.

Distributed Energy Task Force

The **Distributed Energy Task Force** was our first task force. Like a consensus forum, a task force is made up of a diverse group from the public and private sectors, but here the goal is to promote a certain perspective. The people working on our task forces typically are more homogenous in their views than the participants in a consensus forum, so they are not looking for consensus as much as action.



The Distributed Energy Task Force grew out of informal calls for information and assistance from several congressional offices, including a letter from Senator John Breaux of Louisiana, as members of Congress, legislative committees, and staff members began to focus on U.S. electricity

prices and infrastructure along with other energy matters. The project included an assessment of near-term opportunities for distributed energy projects as well as development of an action plan for taking advantage of the most likely of these possibilities.

The task force report concludes that unless the Federal Government takes affirmative steps to promote distributed energy, existing policies, regulations, and business practices will continue to hamper its development. Distributed energy can enhance technical and economic efficiency, provide diversity and security, and promote customer choice. These values are worth the effort necessary to modify existing laws and procedures.

The work of the Task Force continues in the form of a [contract with the National Renewable Energy Laboratory](#) to address regulatory and institutional barriers that must be reduced or eliminated in order for distributed energy to be widely used.

Deregulation Study

CAEM engaged Dr. Rodney Lemon, Chairman of the Department of Economics at Monmouth College, to conduct a study of the lessons

learned from natural gas restructuring during the 1980s. The result of his work was *California Here We Come: The Lessons Learned from Natural Gas Restructuring*, and it received nationwide media attention. The study concluded that consumers had received over \$600 billion in benefits, or about \$6,000 per household, from gas competition.

Natural gas restructuring, which has been ongoing for almost two decades and is analogous to the other network restructurings, is the best piece of available evidence to rebut much of what is being said about deregulation and competition as a result of the California debacle. As we stated at the report's release:

The results are in. The nearly 20 years of competition we've experienced in the natural gas industry proves that the right conditions can foster lower costs for consumers and motivate the industry to make investments that benefit the environment, our economy and our national security.

The IDEAS Foundation

As 2001 ended, California, Enron, retail trading difficulties, and the business climate following September 11 highlighted the economic, policy, engineering, political, and legal challenges facing the restructuring movement. CAEM's leadership realized that the organization needed to devote more time to being a catalyst to mobilize and reenergize the movement. To ensure that the organization simultaneously continued to develop intellectual capital, they established the **IDEAS (Integrated Development of Essential Assets and Services) Foundation** as our think-tank arm.

All of CAEM's projects that result in an analytical report are now initiated and managed through the IDEAS Foundation. The distinguished members of its Board of Advisors meet regularly to make recommendations to the CAEM Board of Directors on topics and funding.

Grid Enhancement Forum

The **Grid Enhancement Forum** was the first project sponsored by our Technology Education Initiative, under which different technologies will be evaluated over the course of the next several years. It examined the viability of grid-enhancing technologies from a regulatory and commercial perspective, including their state of development and current commercial viability. Using that analysis, the group made recommendations on the changes required to integrate these new technologies into the existing regulatory framework and eliminate identified barriers to commercial deployment.

Customer Care Forum

CAEM brought more than 25 senior executives together to explore the potential for creating standards of [customer service and operations in the utility sector](#) and to implement those standards through a certification program. The group agreed that customer care certification would



facilitate competitive energy markets by assuring customers and regulators that marketers are adhering to consistent customer service standards. They set a goal to create momentum for a voluntary, independent, and credible customer care certification process and

to ensure that such a process strikes an appropriate balance so as to avoid creating barriers to entry for new market participants or financial burdens on regulated utilities.

After reaching out to survey various stakeholders and discussing the input received and questions raised, the group agreed that the timing was not right for such an effort.

The members of Phase I and other companies encouraged CAEM to then examine the business case and regulatory context for customer service quality standards. CAEM established a strategic partnership with Navigant Consulting to undertake this work. The final report was released in January 2004 and immediately viewed as being definitive and cutting edge. As a result, CAEM and Navigant were asked to present the results of the study to NARUC, EEI, AGA, and other audiences. The results have been reported on extensively by the media.

CAEM and Navigant Consulting have recently institutionalized our work on customer care issues by forming the Customer Care Research Consortium (CCRC). The CCRC has 16 member companies and is undertaking a full slate of research projects, focusing on such study areas as the reduction of customer contact volumes, utility customer communications, self service strategies and technologies, and customer service standards.

Canadian Affiliate and the Ontario Price Caps Study

In an effort to be more active north of the U.S. border, in 2001 we formed the **Canadian Centre for the Advancement of Energy Markets** or CAEM Canada, in Toronto, and appointed as President Mike McLeod, a former official with the Ontario Energy Board and the Executive Director of the **Canadian Association of Members of Public Utility Tribunals**, the Canadian equivalent of NARUC.

Soon after, Ontario's government instituted changes to its competitive electricity regime that we felt would cause both long and short-term harm to the province's economy. In response, CAEM Canada in 2002 issued a report entitled *Cried Because I Had No Shoes: The Impact of Price Caps on the Ontario Electric Market*.

The report concluded that the Ontario plan created conditions perilously close to those that undermined the California electricity markets and would cause investors to shy away from any commitment to the generation, transmission or retail sides of the business. Our analysis found that the plan would cause Ontario's RED Index score to drop from 45 to 10, ironically putting it in a tie with California for 29th place in North America. The report was widely covered in the Canadian press.

Energy Infrastructure Investment and Incentives Forum

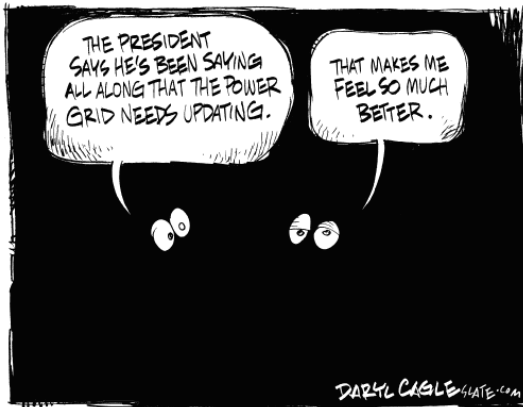
Because a growing number of experts and industry leaders now believe that utilities are not keeping up with growing demand, our **Energy Infrastructure, Investment and Incentives Forum** was organized to examine investment trends and to recommend policies to increase investment in electric transmission and gas pipeline capacity. The forum brought together more than 30 organizations representing key stakeholder groups, public and private, to look at ways to remove regulatory and institutional barriers to new investment and bolster confidence in the capital markets for investments in electric transmission and gas pipelines.

Under the purview of the forum, CAEM in 2003 issued an innovative white paper by Tom Lord, President of Volatility Managers. *Electricity Regulation as an Exercise in Real Option Management* offers insightful analysis on how markets treat regulation for investment purposes and offers a number of recommendations on how to increase liquidity for new energy infrastructure.

Georgia Price Cap Proceeding

CAEM was hired in September 2002 to draft comments for Southstar Energy, doing business as Georgia Natural Gas, on a legislative provision that would allow the Georgia Public Service Commission to impose price caps on marketers. CAEM filed three sets of comments and testified at three workshops. CAEM advocated a methodology that utilized 31 months of price data to compare the spread between the NYMEX commodity price and the average Georgia marketer price to assess the impact of Georgia marketers' prices on Georgia consumers. The key conclusion was that marketer spread was lowest when wellhead prices were highest, convincingly rebutting the perception that marketers were price gouging by charging high prices.

The Georgia Consumer Advocate and Southern Gas eventually supported CAEM's comments and the Georgia Commission issued a final rule, after which CAEM was complimented for changing the terms of the debate.



The Northeast U.S. Blackout

When the lights went out in the summer of 2003, CAEM rightfully told the media that we saw it coming. In a 2002 paper where we listed some predictions, CAEM foresaw “a major blackout ... [the] laws of probability suggest that we are due

for a reminder of how old our infrastructure is” After the blackout, [we were quoted:](#)

CAEM has been waving a red flag about the nation's aging electric transmission infrastructure, and Thursday's blackout is a vivid demonstration of its vulnerability and the need for policies that support infrastructure modernization. The nation's energy leaders have been asleep at the switch, and there is plenty of blame to go around. ... CAEM not only predicted the blackout, but we have already put our money where our mouth is by sponsoring the Grid Enhancement and Infrastructure Investment and Incentives forums, focusing on the need for investment in new infrastructure.

Default Provider Forum

Determination of default service or a provider of last resort is the key to the success or failure of a retail restructuring plan, and a surprisingly diverse set of policies on this critical issue can be found throughout the United States and Canada. Yet there had been little consensus on or analysis of the impacts of these different models on the success of restructuring. CAEM organized the Default Provider Forum in 2003 to investigate the issue and make recommendations on default service and provider of last resort policy.

The forum brought together approximately 50 organizations. As usual, it was split evenly between corporate entities and public sector and public interest groups. They discovered 15 different default service models, only one of which—Georgia’s gas model—could be considered a positive for competition. The rest more or less served to protect the status quo. George Spencer in *Restructuring Today* after reviewing the draft report:

What happens when state government employees continue to set the definitive price of the default supplier so low that no marketer would go there? Nothing happens and the monopoly continues to collect monopoly rent. Regulators had lost in the state legislature but in the end won the right to continue fixing prices. A sorry, sorry picture of how to hurt the public by undermining the discipline of the marketplace.

The draft report and its 10 recommendations drew such wide interest that we held an intensive one-day [seminar](#) on its findings, followed up by a nationwide audio conference. In addition, CAEM was asked to discuss the issue before the [Pennsylvania Public Utilities Commission](#) and will soon do the same before the Delaware Public Service Commission.

Benefits of Competition in PJM

Later in 2003, CAEM conducted a [study estimating the benefits of competition in the Pennsylvania, New Jersey, and Maryland \(PJM\) region](#). It is the first study of its kind, providing a quantitative and qualitative analysis of the impact of restructuring efforts on different consumer classes for each state in the Mid-Atlantic. It estimates that all consumer classes have benefited enormously with billions of dollars saved (and more projected in the future) due to restructuring efforts, particularly at the wholesale level, in addition to non-price benefits and increased reliability. The study was authored by Dr. Ronald Sutherland, a professor at the George Mason University Law School, with the active assistance of a working group representing more than 20 organizations

and top energy economists in the country. Jamie Wimberly stated at the report's release:

This study proves that competition clearly benefits consumers—all consumers, large and small—in the Mid-Atlantic region. PJM provides a model for the country to follow and refutes some arguments now heard in Washington, DC, against competition in electricity markets. This study shows instead that regional approaches like PJM are in the best interest of consumers.

Our findings were widely reported in the media, and a group of 32 [members of Congress](#) cited the report's findings in a letter to the chairman of the Federal Energy Regulatory Commission in support of a recent preliminary decision.

Outreach and Education

Developing studies, reports, and analyses is not a very useful activity unless those documents have some impact on issues relating to energy competition. In fact, the true measure of the efficacy of CAEM is its impact on such issues, not the pounds of paper. *To ensure maximum impact, all CAEM work product is available on our website (caem.org) at no cost.*

Below are Outreach and Education events which, taken together, paint a picture of the efficacy of CAEM on issues.

CAEM in the Press

CAEM's expertise been cited in over 300 articles in publications ranging from daily newspapers to industry journals as well as numerous web sites and web links. In early 2004, we compiled these articles as *CAEM in the Press: 1999 to 2003* and it is an impressive 800 pages long. It includes CAEM's contributions to CNN, Business Week, TIME, US News and World Report, MSNBC, the Nightly Business Report, the Chicago Tribune, Reuters, Salon.com, the Christian Science Monitor, and USA Today, as well as local and trade publications too numerous to list.

Citations by Public Officials

One measure of CAEM's effectiveness is what public officials say about us. Below are some highlights that have come to our attention:

- FERC Chairman Pat Wood has stated, “As we worked to set up Texas’s wholesale and retail power markets while I was chairman of the Public Utility Commission of Texas, the RED Index was our objective benchmark for measuring success. Although our focus at FERC is on wholesale markets, I still look at CAEM’s fine work on the RED Index as an excellent barometer for the state of global power markets today.”
- Thirty two congressmen signed a letter to FERC urging action on PJM, using the CAEM PJM study’s conclusions to support their position.
- Bill Flynn, former President of NYSEDA and currently Chairman of the NYPS&C, has stated the RED Index has become “an essential tool for understanding the rapid changes taking place with policies on retail electricity competition.”
- NJ Commissioner Fred Butler indicated that he used the RED Index extensively in lectures he gave in Bulgaria in a training program for their regulatory officials.
- There was a debate on an energy issue in the Alberta Senate. Interestingly, both sets of advocates used different parts of the RED Index to bolster their point on the floor of the Alberta Senate relating to consumer education programs.
- Michigan then-Chair Laura Chapelle used Michigan’s ranking in the RED Index to rebut a critique of Michigan’s retail choice program.
- Chairman Angel **Cartagena** of the DC Public Service Commission stated, “The Final Report of the **DISCO** of the **Future** Forum needs to be under every regulator’s Christmas tree this year.”
- Pennsylvania, New York, Texas, and Maryland have all issued press releases touting their ranking in the RED Index.
- Then-Governor Ridge mentioned in his final State of the State address Pennsylvania’s ranking in the RED Index as an indication of his success in leading electric restructuring in Pennsylvania.
- FERC’s SMD white paper mentions CAEM’s study estimating benefits resulting from natural gas restructuring.
- FERC Chair Pat Wood and PJM CEO Phil Harris have publicly discussed CAEM’s study of the Benefits of Competition in PJM.
- CAEM’s filed comments were mentioned prominently in an FTC report requested by Congressman Tauzin regarding retail competition.

Leadership Forum

Beginning in January 2004, CAEM now holds a joint meeting twice a year of the CAEM Board of Directors and the Board of Advisors for the IDEAS Foundation, as well as invited guests, called the **Leadership Forum**.

FERC Chairman Pat Wood and Dr. Vernon Smith, Nobel Laureate for Economics in 2002, led the first such Forum in January 2004. This year, the forum is focusing on the legacy of Ronald Reagan in Energy, with representatives of FERC, Congress, and industry ruminating on the success of the gas restructuring.

Competitive Energy Network

CAEM sponsors a forum called the *Competitive Energy Network* that brings together advocates of competition to discuss issues raised by guest speakers.

In the first of these meetings, we sponsored a seminar by Dr. Alan Moran. Dr. Moran is the Director of the Deregulation Unit of the Institute of Public Affairs (IPA) in Australia. The IPA is the Australian equivalent of the Heritage Foundation. Dr. Moran gave a talk about the experience of deregulation, disaggregation, and partial privatization in Australia and New Zealand and the outcomes in terms of prices, reliability, product development, etc. About 20 people participated, including FERC, the Heritage Foundation, Resources for the Future, and the Progress and Freedom Foundation.

CAEM also sponsored a seminar in March for David Pruner of Wood Mackensie to discuss their recent natural gas study. More than 30 people participated in the seminar, including the DC Public Service Commission, George Mason University (Mercatus Center), the U.S. Department of Energy, the Energy Information Administration, FERC, the Federal Trade Commission, and the Domestic Petroleum Council.

Published Articles

CAEM staff and scholars published several articles in 2003:

- Ken Malloy, *Four Horsemen of the Electric Apocalypse*, an article for **US Industry Today**.
- Ken Malloy, *Recovering from Setbacks in Electric Competition Policy*, Published in **Natural Gas and Electricity Journal**, December 2003 (Wiley Periodicals, Inc.).

- Ron Sutherland, *Providing for Default Service in Retail Natural Gas and Electricity Markets*, an article in Energy Pulse
- Ron Sutherland, *Estimating the Benefits of Restructuring Electricity Markets: An Application to the PJM Region*, an article in Energy Pulse.

Workshops

We recently sponsored a workshop on our study estimating the benefits to [competition in PJM](#). There was no charge to public-sector participants. In addition to a number of private-sector organizations, the public sector was represented by the DC, New Jersey, New York, Pennsylvania, and Virginia utility commissions as well as staff from the U.S. House of Representatives, the Massachusetts Attorney General’s office, the Virginia Consumer Advisory Board, and the DC Office of the People’s Counsel.

We also recently conducted a workshop on the draft [Default Provider Study](#). Among the 50-plus participants were the following public-sector organizations:

- George Mason University
- Delaware Public Service Commission
- Federal Trade Commission
- FERC
- Industry Canada’s Competition Bureau
- Kentucky Association for Community Action
- Maryland Public Service Commission
- Massachusetts Department of Telecommunications and Energy
- New York State Public Service Commission
- DC Office of the People’s Counsel
- Pennsylvania Public Utility Commission
- PJM Interconnection
- Virginia State Corporation Commission

CAEM also holds in-house workshops for public-sector organizations. We have held workshops for the New York Public Service Commission, the New York Independent System Operator, and the New Jersey Board of Public Utilities. Additional workshops are scheduled for the Delaware and Pennsylvania commissions. We have also held workshops for corporate organizations such as Constellation, ComEd, and Swidler Berlin.

Speeches

CAEM frequently gives speeches and presentations. While the list from the last five years is too long to present in its entirety, the following represents a sampling of the last two years:

- Annual conference of energy economists (NAESCO)
- Atlantic Institute for Market Studies
- Australia (three presentations)
- Defense Procurement Agency (Pentagon)
- Deloitte and Touché Client Conference
- Edison Electric Institute
- French Embassy
- Knight Center of Journalism at the University of Maryland
- MACRUC
- MARC
- NAESB Annual Conference
- Ontario Power Conference
- Peak Load Management Alliance
- Pennsylvania Public Utility Commission
- SMD Conference in Ontario

Banquet and Leadership Awards

On July 28, 2004, we celebrated the [Fifth Anniversary of the Center for the Advancement of Energy Markets](#). Former FERC and Wisconsin Commissioner and CAEM Board Member Branko Terzic gave a compelling testimonial to CAEM. We then began a new tradition as we presented Leadership Awards for notable accomplishments in energy markets. The first of these awards were presented to:

Hall of Fame

Martin Allday, former Chairman of FERC

Raymond J. O'Connor, former Chairman of FERC and NYPS
Commissioner (1932–1995)

Dr. Charles Stalon, former FERC Commissioner and Illinois Commerce
Commissioner

Adam Smith Award

John Hanger, president of PennFuture and former Pennsylvania
Commissioner

Braveheart Award

Kathleen Magruder, formerly of Enron and New Power

Churchill Award

Pat Wood, Chairman, FERC

Continental Congress Award

Gas Industry Standards Board/North American Energy Standards Board (*Rae McQuade*, Executive Director accepting)

Paul Revere Award

George Spencer, Editor, Restructuring Today

Phoenix Award

Georgia's Gas Market (*Douglas Everett*, Chairman of the Georgia Public Service Commission accepting)

Thomas Jefferson Award

Bill Flynn, Chairman of NYSPSC and former president of the New York State Energy Research and Development Authority (NYSERDA)

Unsung Hero Award

Calvin Timmerman, Director, Rate Research and Economics Division, Maryland Public Service Commission

Moving Forward



Taking a cue from Winston Churchill, we find at the end of five years that the “success [of the electricity competition movement] is moving from failure to failure with great enthusiasm.” Ken Malloy in a recent article:

Most discussions of “where do we go from here” turn into exercises envisioning a set of more modest policy changes at either the state or federal level that would achieve nirvana. This focus is misplaced. The competitive electric advocacy movement is disorganized and in crisis and disarray. We need to take a step back, rethink our tactics and strategies, and then re-emerge with a more mature understanding and set of recommendations. We should postpone many of our individual efforts and rather substitute effort to develop a cohesive strategy.

Over the last five years, CAEM has established its credibility, and its public presence has grown beyond our expectations, no doubt aided by

the above-the-fold energy crises. Examples abound. When Arnold Schwarzenegger took over as governor of California in 2003, his transition team asked CAEM to draft proposals on the state's recovering electricity market. CAEM conducted day-long in-house workshops at the New York Public Service Commission and the New York Independent System Operator. CAEM has made numerous presentations to NARUC and state commissions. We have appeared in the national press and media.

Some Direction for the Future

So we find ourselves with a superb opportunity to influence a policy debate that is now more vigorous than ever. We believe that we can win that debate and that the benefits of competition can reach much further than they have already.

Because we believe the issue now transcends the trade press and technical discussion groups to involve the national media and opinion leaders outside the business-as-usual players, CAEM is organizing the **Council for Understanding Energy Markets** to provide objective, unbiased information on key issues relating to natural gas and electric markets, regulation and restructuring to the 1000 most influential energy opinion makers in the United States, as well as to the interested public at large.

In the near future, we are also planning a study of alternatives for dispute resolution in industries that are highly litigious because of the enormous financial stakes of decisions and business dealings. Keeping disputes out of traditional regulatory proceedings, administrative agencies, and courts will enhance competitive energy markets by providing more certainty, quicker decision making, better relationships, lower costs, time savings and other efficiencies.

Our distributed energy work continues in a contract with the National Renewable Energy Laboratory. And we have partnered with Navigant Consulting to create an independent research consortium that will provide targeted, fact-based research on customer service quality issues. We gave the keynote address at a conference in Australia and, working with the Institute for Policy Affairs in Australia, plan to develop a study comparing energy restructuring in Australia and New Zealand to developments in the United States and Canada.

Finally, the IDEAS Foundation has a full slate of projects either underway or being considered for the second half of 2004 and 2005, including the Virtual Choice Forum and the Competitive States Forum (a forum for staff of state commissions that have moved forward on competition).

Cracking the Real Nut: A Tough Prescription

So we are well positioned, but on what should we focus? Regarding the current state of electric competition policy, there is surprisingly strong agreement on nine propositions:

1. In the last several years, competitive electric policy has suffered significant setbacks.
2. The setbacks have crippled the historic supporters of competitive electric policies.
3. The supporters of electric competition made serious mistakes but have learned some valuable lessons from their mistakes.
4. The United States is currently stuck in the middle of a transition between the traditional model for regulating utilities and a competitive model.
5. The uncertainty created by being stuck in the middle is untenable and unsustainable over the long-term.
6. This uncertainty creates significant risk for the nation, consumers, and many companies.
7. Current policy proposals, e.g., the national energy legislation, will not resolve and may significantly exacerbate the problem.
8. The goal of pursuing a competitive electric policy is still a worthy goal.
9. There is currently no obvious path to achieve the goal of competitive electric markets. There is no vision, no leader, no strategy, and limited funding for where we should go from here.

What will it take to develop a cohesive, effective energy competition movement? Below is a seven-part framework on how we should proceed.

Vision

The Book of Proverbs says, “Where There Is No Vision, the People Perish.” We have been very confused about our vision for the future of the electric industry. Our vision so far seems to be saving customers a penny per kilowatt-hour. This is a profoundly unexciting vision on which to predicate the blood, sweat, and tears that will be necessary to transform this industry. Far more exciting is a vision predicated on a revolution in products, services, and technologies that are more commensurate



with the 21st century consumer's lifestyle, integrated with other network flowing content goods.

We must be clear about where we want to go and why.

Policy

We need tried-and-true policy prescriptions grounded in reliance on

“right” prices and market reliance, not stale, self-interested, least common denominator proposals. Coming up with such policy recommendations will require both maturity of judgment and sacrifice of short-term objectives.

Leadership

No individual or company has yet come forward to fill the niche formerly occupied by Enron. The reaction to mere mention of this company is all that needs to be said in order to understand the reluctance of many corporate officials in being associated in a very public way with leadership and the competitive electricity movement. Nevertheless, without academic, nonprofit, consumer, political and corporate leadership it is clear that we will not make progress.

Strategy

No football coach expects to be successful without first having a playbook that contains all of the potential actions that might be taken in order to achieve success on the field. It is understood that each player will have a role in carrying out part of the playbook. Some will have big roles, some minor roles. While there is obviously a role for individual initiative in carrying out the coach's expectations regarding the playbook, chaos and ultimately defeat follow if each player decides to go that player's own way.

The advocates of competition have no playbook. Thus, none of us knows what role we should be playing in order to achieve success on the playing field of electric competition.

We need a bold action plan that supporters can follow, not a let-a-thousand-flowers-bloom approach.

Organization

Perhaps the most pernicious legacy of Enron's collapse is the organizational chaos left behind. Several difficult years have left the trade associations that advocate competitive electricity policies in a weakened condition. No company has jumped to the front of the line to take the place of Enron, perhaps fearing an intense level of scrutiny of its corporate practices. For whatever reason, the large think tanks, foundations, and universities have not provided the intellectual leadership on this issue that they provide on other issues. There is no coalition that is broader than corporate self-interest that would allow former secretaries of energy, governors, Nobel laureates, environmentalists, consumers, generators, utilities, and others to participate in the advocacy and support of competitive electricity policies.

We need effective organizations similar to the type that exist in other reform strategies, such as the consumer and environmental movements

Outreach

The public relations problem that the advocates of electric competition have in restoring confidence in its integrity and the efficacy of its policies is monumental. We need a foundation of education, consensus building beyond the business-as-usual players, and a restoration of credibility to those whose support is essential.

Funding

Enron reputedly spent upwards of \$50 million a year in the advocacy of competition in the energy industry. That funding represented a significant commitment of financial and personnel resources to competition policy. No company will come forward with that level of commitment anytime soon. Thus, it seems inevitable that we must organize much more effectively. No single organization will dominate the funding of the movement like Enron. We need a mechanism for pooling and deploying funding to accomplish the needed reforms.

Strategy Initiative

Numerous discussions with industry leaders confirm that the competitive energy movement is in disarray and nearly bereft of leadership on external policy issues that will shape future development of energy markets. The general perception is that the advocates of competition did not fare well in the energy legislation debate.

CAEM is organizing an initiative to discuss the future of competitive electric policy and develop some high-level consensus on future strategy.

Convention of Energy Competition Supporters and Leadership Awards Banquet

With the success of the Leadership Forum, our Fifth Anniversary Banquet, and the CAEM Leadership Awards, CAEM is ready to move to the next step of sponsoring an Annual Convention of Supporters of Energy Competition in 2005. The Convention will culminate in an annual banquet at which we will continue the tradition of presenting Leadership Awards.

On the Drawing Board

We have more ideas than we have resources to implement. Three of the ideas on the drawing board for the future are:

- CAEM has long envisioned a week-long training seminar for regulators on competition issues and other issues as a counterpoint to Camp NARUC which emphasizes traditional regulatory approaches.
- Public utility regulation faces its most significant challenges since its inception. The American Bar Association has a “Standing Committee on the Federal Judiciary.” The Committee rates each federal judicial made by the president as “Well Qualified,” “Qualified” or “Not Qualified”. CAEM should act as a catalyst to the development of an independent organization made up of ex-public utility commissioners that would render judgment on a governor’s nomination of a utility commissioner.
- CAEM should establish a journal on energy market issues.

Time to Wrap Up

Quite unexpectedly, the Four Horsemen of the Electric Apocalypse came galloping during the first five years of CAEM—*California, Enron, the collapse of the trading sector, the blackout*. Together, the Four Horsemen resulted in a crisis of confidence in the competitive sector and a collapse of the original funding base of CAEM.

Perhaps our greatest accomplishment: **We Survived!**

The United States has broken up telephone, natural gas, airline, trucking, and railroad monopolies over the last 25 years and consumers have received spectacular benefits in terms of price and technological, product, and service innovation. Some people complain about how even these deregulation policies were not perfect—we get squeezed like sardines on airlines, called at dinner by long-distance telephone companies, and pay more for natural gas. Nevertheless, you would not want to trade the good for the bad.

As we celebrate our fifth anniversary, we also have found some time to ruminate on what has happened to electricity restructuring. Back in 1999, it seemed inevitable that the tide in favor of competitive electricity markets would sweep across not only the United States, but North America and eventually the world.

That will still happen. Trends in technology, consumer demands, and economic policy ensure that it is just a matter of time. The time horizon is no doubt longer than we perceived five years ago. It is time to internalize the lessons of past successes and failures and move forward.

Gandhi said:

First they ignore you.
Then they laugh at you.
Then they fight you.
Then you win.

Appendix



CAEM is the sum of all the people and organizations on whose shoulders we have stood as we celebrate our fifth anniversary. We thank them all. At the risk of forgetting someone, below are lists of:

- Those who have served on the CAEM Board of Directors.
- Those who have served on the Board of Advisors of the CAEM IDEAS Foundation.
- Organizations who have provided financial support or participated in our projects, and
- Members of the CAEM Staff, CAEM Scholars, and CAEM Fellows.

We apologize in advance if we have missed you or your organization. Please let us know so we can rectify our error in future printings.

CAEM Board of Directors—1999 to 2004

Note: Organization designations are the organizations people were with when they were a Board Member, not necessarily their current organizations. Being listed below does not necessarily mean that the person or organization agrees with CAEM's positions.

John Anderson, PSE&G
Larry Bickle, Haddington Ventures
Mike Braswell, SouthStar Energy Services
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Angel Cartagena, DC Commission
Bill Cronin, Direct Energy (Centrica)
David Doane, Koch Industries
Peter Esposito, Dynegy
Cody Graves, Automated Energy
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Ken Malloy, CAEM
Ernest Moniz, MIT
Scott Neitzel, Madison Gas and Electric

Bill Penniman, Sutherland, Asbill and Brennan
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Joel Singer, Navigant Consulting
James Steffes, Enron
John Strom, Haddington Ventures
Mike Swider, Strategic Energy
Branko Terzic, Deloitte and Touché
Paul Thomas, Green Mountain Energy
Timothy Thuston, Williams Companies
Tom Tribone, AES
Kent Van Liere, Primen
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Robert Yardley, Navigant Consulting

CAEM IDEAS Foundation—2002 to 2004

Note: Members of the CAEM Board of Directors are members of the IDEAS Foundation Board of Advisors and are not relisted. Organization designations are the organizations people were with when they were on the Board of Advisors. Being listed below does not necessarily mean that the person or organization agrees with CAEM's positions.

Steven Agresta, Swidler Berlin Shereff Friedman
Frank Bender, Baltimore Gas & Electric
Ashley Brown, Kennedy School of Government, Harvard University
Tom Casten, Private Power/Primary Energy
Edward Cazalet, The Cazalet Group
Mahmud Chaudhry, LA Department of Water and Power
Ken Costello, National Regulatory Research Institute
Carrie Cullen Hitt, Constellation NewEnergy, Inc.
Susan Dudley, George Mason University/Mercatus Center
Jerry Ellig, George Mason University/Mercatus Center
Mark Fallek, DTE Energy Technologies
Wade Freeman, TXU/Oncor
John Hanger, Citizens for Pennsylvania's Future
Jolly Hayden, Calpine Corporation
Jim Hoecker, Swidler Berlin Shereff Friedman
Douglas Howe, DH Energy Associates
Fred Julander, Colorado Oil and Gas Association
Emmett Kelly, Itron
Ron Magnuson, Allegheny Power
Kathleen Magruder, New Power Company

Joe Monroe, SouthStar Energy Services LLC
Mark Moskovitz, BearingPoint
Laura Murrell, Retail Competition, Inc
Karen O’Neill, Green Mountain Energy
Brett Perlman, Texas Public Utility Commission
Tom Rose, TXU/Oncor
Don Santa, Troutman Sanders
Irene Stillings, San Diego Regional Energy Office
Dave Svanda, Michigan Public Service Commission
Eric Svenson, PSEG
Bob Thomas, Green Mountain
Mike Volker, Midwest Energy
Colin Watson, KeySpan Energy
Rudy Wynter, KeySpan Energy

Companies and Organizations Financially Supporting or Participating in CAEM Projects

Note: Being listed below does not necessarily mean that the organization agrees with CAEM’s positions.

Accenture	Cartagena Associates
Adams and Reese	Cazalet Group
AGL Resources	Center for Applied Energy Research
Alabama Public Service Commission	CERA (Cambridge Energy Research Associates)
Alaska, Regulatory Commission of	Choice Energy!
Allegheny Energy	Cinergy
Allegheny Power	Citizens for Pennsylvania’s Future
Alliance to Save Energy	City Public Service
Alliant Energy	Clean Energy Group
ALSTOM T&D Energy Automation	Colorado Oil and Gas Association
American Superconductor	Colorado Public Utilities Commission
Andersen	ComEd
Arizona Corporation Commission	Commonwealth Edison/Exelon
Arkansas Public Service Commission	Competitive Energy Strategies Co.
Austin Energy	Con Ed
Automated Energy	Conectiv
Automated Power Exchange, Inc.	Congressman Tauzin’s Office
Baltimore Gas & Electric	Connecticut Department of Public
Basler Electric Company	Utility Control
BearingPoint	Constellation/New Energy
Bureau of Land Management	Consumer Federation of America
California Public Utilities Commission	Crested Butte Catalysts
California State University	DC Public Service Commission
Calpine Corporation	Delaware Public Service Commission
Cargill	

Deloitte and Touché
 Dickstein Shapiro Morin & Oshinsky
 Direct Energy
 Dominion Energy, Inc.
 Dominion Virginia Power
 DTE Energy Technologies
 Dynegey, Inc.
 El Paso Corporation
 Electric Power Research Institute
 Electricity Consumers Resource
 Council (ELCON)
 Electricity Innovation Institute
 Enercon Engineering, Inc.
 Energy and Commerce Committee,
 U.S. House of Representatives
 Energy Environment and Economics
 Institute
 Energy Information Administration,
 US Department of Energy
 ERCOT
 Exelon Enterprises
 Falcon Gas Storage Company
 Federal Energy Regulatory Commission
 Federal Trade Commission
 Fire & Ice
 First Energy
 Florida Public Service Commission
 Franklin Park
 Geophonic, Inc.
 George Mason University
 Georgia Public Service Commission
 Green Mountain Energy
 Greenhouse Gas Technology Center
 Haddington Ventures
 Hawaii Public Utilities Commission
 H-E-B Grocery Company
 Idaho Power
 Idaho Public Utilities Commission
 IID Energy (Division of Imperial
 Irrigation District)
 Illinois Commerce Commission
 Illinois Power
 Indiana Utility Regulatory Commission
 INGAA
 International Institute for Energy
 Conservation
 Intl. Liquid Tankers Association
 Iowa Public Utility Commission
 Itron Corporation
 Kansas Corporation Commission
 Kennedy School of Government,
 Harvard University
 Kentucky Public Service Commission
 Keyspan Energy
 Kleinschmidt
 LA Department of Water and Power
 Law Office of Philip Marston
 Lehman Brothers, Inc.
 Louisiana Public Service Commission
 Madison Gas and Electric
 Maine Public Utilities Commission
 Manitoba Public Utilities Board
 Maryland Energy Administration
 Maryland Public Service Commission
 Massachusetts Department of Telecom
 and Energy
 Massachusetts Institute of Technology
 Mercatus Center, George Mason
 University
 Michigan Public Service Commission
 Midwest Energy
 Minnesota Public Utilities Commission
 Mississippi Public Service Commission
 Missouri Public Service Commission
 Mitsubishi Electric Power Products
 Montana Public Service Commission
 National Governors Association
 National Institute of Health
 National Regulatory Research Institute
 National Renewable Energy Laboratory
 National Research Council
 Navigant Consulting
 Nebraska Public Service Commission
 NERC
 Nevada Public Utilities Commission
 New Hampshire Public Utilities
 Commission
 New Jersey Board of Public Utilities
 New Mexico Public Regulation
 Commission
 New Power Company
 New York Independent System
 Operator
 New York Public Service Commission
 North Carolina Utilities Commission
 North Dakota Public Service
 Commission
 NorthWestern Energy

NRECA
 Ohio Citizens Action
 Ohio Consumers' Counsel
 Ohio Public Utilities Commission
 Oklahoma Corporation Commission
 Oncor Group (Formerly TXU)
 Oregon Public Utility Commission
 OSI
 Palo Alto Utilities Advisory
 Commission
 PECO Energy Company / Exelon
 Energy Delivery
 Pennsylvania Office of Consumer
 Advocate
 Pennsylvania Public Utility Commission
 PEPSCO Holdings Inc.
 Powerline GES
 PriceWaterhouseCoopers
 Primary Energy Holdings
 PRIMEN
 Private Power
 Progress and Freedom Foundation
 PSE&G (Public Service Electric and
 Gas)
 Puget Sound Energy
 Reason Foundation
 Reason Public Policy Institute
 Reliant Energy
 Renewable Energy Policy Project
 Resource Consultants
 Resources for the Future
 Retail Competition, Inc
 Rhode Island Public Utilities
 Commission
 Rockport Partners
 San Diego Regional Energy Office
 Sandia National Laboratories
 Sanford C. Bernstein & Co., LLC
 Sapient
 Schwab Capital Markets, L.P.
 Small Customer Marketer Coalition
 South Carolina Public Service
 Commission
 South Dakota Public Utilities
 Commission
 Southern California Edison
 SouthStar Energy Services
 SPL WorldGroup
 State of Illinois, Office of the
 Attorney General
 State of Virginia, Office of the
 Attorney General
 Strategic Energy
 Summit Blue, LLC
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 Tabors Caramanis & Associates
 Technology and Market Solutions
 Tennessee Regulatory Authority
 Texas Legal Services Center
 Texas Public Utility Commission
 Texas Railroad Commission
 The Sweet Strategy Group
 Thelen Reid
 TransÉnergie U.S.
 Turbec Americas
 TXU/Oncor
 U.S. House of Representatives
 Science Committee, Energy
 Subcommittee
 UHR Technologies L.P.
 University of Maryland, Baltimore
 Campus
 U.S. Department of Energy
 U.S. Senate, Office of Senator Burns
 USDA/Rural Utilities Service
 Utah Public Service Commission
 Utility Resource Consulting
 Vermont Public Service Board
 Virginia State Corporation Commission
 Volatility Managers, LLC
 Washington Gas Energy Services
 Washington Utilities and
 Transportation Commission
 Wattage Monitor
 WEC Director Studies Programme
 West Virginia Public Service
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 Wisconsin Public Service Commission
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