Cornerstone Research staff and experts have provided participants in the U.S. and international energy markets and their legal counsel with strategic and economic consulting and expert testimony for more than two decades. Our clients have included investment banks, energy trading firms, regulated utilities, independent power producers, power marketers, regulatory agencies, coal and gas producers, and large, vertically integrated petroleum companies.

Cornerstone Research combines energy experience with expertise in other areas of economic consulting such as antitrust, securities, and intellectual property. We draw on this range of experience to address the financial and antitrust issues arising with increasing frequency in today’s changing energy sector—including market design, market monitoring, alleged price fixing, mergers, trading disputes, analysis of environmental issues, and asset valuation—which span several of our core capabilities.

In addition, our unique collaboration between in-house consulting staff and renowned faculty and industry experts provides a premier set of resources for addressing economic and financial issues arising in energy-related matters. Our staff consultants hold advanced degrees in economics, finance, accounting, and business and are experienced in both the energy industry and the litigation process. Several of our senior staff serve as testifying experts. Our affiliated faculty experts are drawn from leading business schools, economics departments, and law schools. Our industry experts have long-standing experience as managers, directors, or regulators in the energy business.

The following pages briefly describe a few selected engagements in which Cornerstone Research and members of our energy practice have played a significant role.

Among the Energy Matters Discussed Inside...

- Aguilar v. Atlantic Richfield
- Cedar Bay v. Florida Power & Light
- Cost of Capital Analyses
- Department of Justice Merger Review
- DPL Securities Litigation
- Exxon-Mobil Merger
- FERC Refund Hearings on California Electricity Markets
- Logan Generating v. Atlantic City Electric/Conectiv Energy
- Long Beach Crude Oil Price Litigation
- Merrill Lynch v. Allegheny Energy
- Natural Gas Commodity Litigation
- Valuation of Business Loss Caused by Hurricane Katrina
- Williams Securities Litigation
- Wyoming Tight Sands Natural Gas Litigation
- ZC Specialty Insurance v. Steadfast Insurance
MARKET MANIPULATION

Since the beginning of the California energy crisis, energy firms have faced increasing levels of scrutiny from both government regulators and private civil plaintiffs. This legal scrutiny has focused disproportionately on the trading and marketing arms of many of the largest U.S. energy firms and has often taken the form of allegations of market manipulation through trading strategies, the operation of physical assets, and the reporting of prices to trade publications. Cornerstone Research has been actively involved in many of the highest-profile market manipulation investigations in the energy industry. The experience and expertise of our staff and experts in energy markets, antitrust, and finance combine to bring a multidisciplinary approach to the evaluation of market manipulation allegations.

FERC Refund Hearings on California Electricity Markets
Retained by the Joint Defense Group Representing Thermal Generators

The state of California sought refunds of approximately $9 billion from thermal generators that participated in the California ISO (real time) and PX (day and hour ahead) electricity markets during the period of October 2000 to June 2001. The joint defense group of California thermal generators (AES, Duke Energy, Dynegy Power Marketing, Mirant, NRG Energy, Reliant Energy, and Williams Energy) retained Cornerstone Research to collect and consolidate data on California electricity markets. This effort involved integrating large data sets from both public and private sources to be used as a basis for analyzing bidding behavior by market participants and evaluating alternative refund methodologies for FERC-ordered refunds.

In re Natural Gas Commodity Litigation
Retained by Hogan & Hartson

Counsel for American Electric Power (AEP) retained Cornerstone Research to evaluate plaintiffs’ claims that alleged false reporting of natural gas prices by AEP and other natural gas trading firms led to artificial natural gas prices traded on NYMEX. Our expert’s analysis deconstructed the plaintiffs’ experts’ claims by showing that almost nine out of ten alleged false reports were simply artifacts of the plaintiffs’ experts’ data mishandling.

On behalf of both AEP and Coral Energy Resources, our expert also opined that the plaintiffs’ model for assessing the alleged artificiality of NYMEX prices achieved its results only by ignoring key elements of the structure of the U.S. natural gas markets. She also established that, even assuming that the plaintiffs’ experts’ artificiality estimates were correct, their estimates of damages were not related to any potential harm suffered by any individual entity.

Shortly after our expert filed her report, AEP reached a settlement for a small fraction of the damage claims put forth by the plaintiffs’ experts.
In addition to the publicly disclosed roles already discussed, Cornerstone Research has played active but nonpublic roles in a wide range of other energy-related litigations and investigations. Our experience covers natural gas, electricity, petroleum, and refined products, as well as other energy commodities, and includes investigations of misconduct allegations in the physical and financial markets, cash, over-the-counter forwards, futures, and retail markets. The following are some highlights of these engagements:

• Cornerstone Research evaluated and rebutted allegations of improper burst trading and churn trading by a large energy trading firm on a prominent electronic trading platform.

• For a midsize electric and gas utility, Cornerstone Research analyzed allegations of natural gas market manipulation through a combination of trading and the control of storage and pipeline capacity in key market storage facilities and pipelines.

• For several energy trading firms, Cornerstone Research investigated allegations of improper wash or round trip trading.

• Cornerstone Research staff drafted a white paper on electronic trading platforms, which examined the benefits to market efficiency, the potential risk of susceptibility to market manipulation, and the risk associated with overregulation of emerging technologies.

• In the Electric Reliability Council of Texas (ERCOT) electricity market, Cornerstone Research analyzed allegations of market manipulation of electricity markets by engaging in economic and physical withholding through publicly maligned bidding strategies such as the submission of “hockey stick” bids.

• Cornerstone Research took a leading role in several natural gas price misreporting investigations. In these matters, Cornerstone Research staff undertook detailed data analysis of multiple types of company and market data to determine the number and characteristics of trades made by the company and to determine whether these trades might have been considered reportable at the time they were made. Such analysis relied heavily on Cornerstone Research’s in-house expertise on natural gas trading and the physical natural gas infrastructure in the United States and Canada. Additionally, Cornerstone Research staff conducted detailed analysis of company, desk, and trader positions to analyze the potential incentives or disincentives to misreport trade prices.

• Cornerstone Research analyzed allegations that the trading division of a large energy firm had cornered the market on a widely used energy commodity.

• For a large natural gas producer, Cornerstone Research evaluated allegations of withholding large quantities of natural gas from the North American market.

• A class action on behalf of electricity consumers alleged that seven independent generators engaged in anticompetitive behavior in the deregulated California electricity market. Cornerstone Research took the lead in gathering information about California markets, from both public and private sources, and developing a database used to analyze various aspects of the market mechanism.

• For a merchant power producer accused of withholding generation capacity from the market, Cornerstone Research analyzed the relevant bidding, outage, contract, and generation data and showed that the company’s plants were operating at or near full capacity during the period at issue.
Cornerstone Research has analyzed the potential effects of mergers, price fixing allegations, and other potentially anticompetitive behavior in the energy industry. Such analysis typically requires the sophisticated techniques common to most antitrust cases. In the energy arena, Cornerstone Research combines these traditional antitrust tools with our experience and knowledge of the energy markets to develop techniques and methods appropriate for the unique structure of the energy industry.

**U.S. Department of Justice Review of a Merger in the Electric Power Industry**

Cornerstone Research worked for the U.S. Department of Justice (DOJ) to evaluate a merger in the electric power industry. Under the guidance of two academic experts retained by the DOJ, Cornerstone Research processed and analyzed a large number of data and documents on the merging companies and the relevant electricity market. Using information gathered from these data and documents, we helped develop and implement a detailed simulation model to estimate the competitive impact of the merger under different divestiture, load, and transmission scenarios. The high flexibility and computational efficiency of the model enabled us to estimate the merger’s impact under a large number of market scenarios in a timely manner.

Based on the analysis conducted by the academic experts and Cornerstone Research, the DOJ reached a settlement agreement with the merging companies in which the companies agreed to divest certain assets to mitigate the competitive impact of the merger.

**Aguilar, et al. v. Atlantic Richfield Corporation, et al.**

Retained by Munger, Tolles & Olson

In 2001 the California Supreme Court affirmed in a 7–0 vote the California Court of Appeal’s judgment in this case, awarding all defendants summary judgment. The defendants, major gasoline refiners in California, had been accused of fixing prices, restricting capacity, and limiting production when California converted to cleaner-burning California Air Resources Board (CARB) gasoline. Shell Oil’s counsel retained Dr. Michael Keeley of Cornerstone Research to evaluate plaintiffs’ collusion theory in the underlying litigation. His research showed that Shell’s pricing, capacity, and production decisions were consistent with competition and contradicted plaintiffs’ claims of collusion.

**Exxon-Mobil Merger**

Retained by Covington & Burling and by Hogan & Hartson

In its assessment of the proposed Exxon-Mobil merger, the Federal Trade Commission (FTC) raised a number of competition issues for further review. Cornerstone Research supported Professor Janusz Ordover of New York University, who was retained as a consultant on many of these issues. Following extensive FTC scrutiny, the merger was permitted.

**Long Beach Crude Oil Price Litigation**

Retained by Baker & Hostetler

The state of California and the city of Long Beach charged Exxon and six other oil companies with conspiring to depress crude oil prices, claiming damages of about $270 million (before trebling). Six of the companies settled the case while not admitting to any wrongdoing. Exxon took the case to court.

Cornerstone Research analyzed the plaintiffs’ liability and damage claims, both of which centered on crude oil exchanges. Dr. Michael Keeley of Cornerstone Research presented expert testimony in court showing that the price of crude oil was not depressed, that crude oil exchanges were consistent with competition, and that plaintiffs’ damage claims were grossly overstated. Following a six-month trial and eight days of deliberations, the jury cleared Exxon of all charges.

**Wyoming Tight Sands Natural Gas Price Litigation**

Two utility companies and a fertilizer manufacturer in the Midwest alleged that they were overcharged for regulated natural gas. The defendants were a pipeline carrier and an oil and gas company. A Cornerstone Research team worked with defense counsel to evaluate the plaintiffs’ damage models. In addition, Cornerstone Research assisted Professor James Sweeney of Stanford University in conducting analysis and preparing trial testimony demonstrating that the pipeline carrier, as a net buyer, had no incentive to seek high natural gas prices. The case settled for a small fraction of the originally claimed damages.
FINANCE AND VALUATION

In addition to the properties imparted to them by the unique structure of the energy industry, energy commodities typically share many of the common attributes of other commodities and financial instruments. With our extensive experience in financial valuation, Cornerstone Research can effectively utilize the financial asset attributes of energy commodities to develop and employ sophisticated valuation techniques for energy commodities, assets, liabilities, and risks.

Cost of Capital Analyses

For an electric utility involved in restructuring, Cornerstone Research analyzed the reasonableness of the financing terms in a long-term arrangement between the unregulated subsidiary and the regulated utility. Working with Professor Colin Blaydon of Dartmouth College, Cornerstone Research analyzed recent experience with power project financing and estimated the rates of return required for projects of similar risk.

In addition, Cornerstone Research has supported Professor Blaydon in conducting analysis and preparing testimony on required rates of return for several other natural gas and electric utilities as part of their regulatory rate review process.

Valuation of Business Loss Caused by Hurricane Katrina
Retained by sEnergy Insurance Ltd.

In an insurance claim matter, sEnergy Insurance Ltd. retained Cornerstone Research to analyze the business loss at a major Gulf Coast refinery resulting from Hurricane Katrina. Using advanced econometric techniques, Cornerstone Research estimated the duration and the magnitude of Hurricane Katrina’s effect on gasoline crack spreads. The key issue involved predicting the refinery’s profits in the absence of the Hurricane Katrina–forced shutdown and the hurricane’s effects on gasoline markets. In addition, Cornerstone Research provided critiques of the reports submitted by the insurance adjusters. Cornerstone Research’s analyses were used to evaluate the refinery’s claim and make recommendations to sEnergy’s management.

In re Williams Securities Litigation
Retained by Gibson, Dunn & Crutcher

Cornerstone Research supported Dr. Craig Pirrong of the University of Houston in reviewing and opining on the reasonableness of The Williams Companies’ methodologies for valuing multibillion-dollar long-term energy contracts during the class period (July 2000 through July 2002). The valuation of these complex contracts depended substantially on the embedded real option value contained in the structure of the contract. As part of its financial reporting and risk management program, Williams developed a sophisticated, multi-layered process that employed option valuation techniques to value the contract.

The plaintiffs attacked this process, focusing their criticism on several significant inputs to the valuation model. Dr. Pirrong’s analysis showed that Williams used reasonable inputs in its proprietary valuation models and that these models produced reasonable valuations for the complex contracts. Dr. Pirrong argued successfully that an alternative model advanced by the plaintiffs, when used with reasonable inputs, validated Williams’ models, methodology, and values.
ZC Specialty Insurance Company v. Steadfast Insurance Company
Retained by Paul, Hastings, Janofsky & Walker

After a power plant in Latin American defaulted on certain debt obligations, a dispute arose between two highly capitalized insurers regarding a political risk insurance policy that covered part of the financing. The plaintiff alleged that a change in regulation caused the plant’s default and amounted to a government expropriation that should be covered by the insurance policy. The defendant engaged Cornerstone Research to assist Professor James Sweeney of Stanford University and Professor Colin Blaydon of Dartmouth College.

Using analysis conducted by Cornerstone Research, Professor Sweeney showed that the change in regulation was consistent with the country’s policies as well as rules in other bid-based organized markets (such as those in the United States). He also showed that the regulatory price cap mechanism was reasonable in that it allowed the plant to recover its variable costs of generating electricity.

Under Professor Blaydon’s direction, Cornerstone Research analyzed the plant’s operating and financial performance as well as the local electricity market, including assessments of supply and demand, market prices, and dispatch rates. Relying on this research, Professor Blaydon demonstrated that the plant’s default did not result from the change in regulation, but rather from its inefficient operations, relatively high operating and supply costs, low demand, and excess supply. The defendant settled the dispute for a small fraction of the original claim.

Retained by Shearman & Sterling

In 2001 Merrill Lynch sold its energy trading unit to Allegheny Energy. Merrill Lynch retained an equity interest in the trading unit, as well as the right to sell that equity to Allegheny Energy at a later date for $115 million. When Merrill Lynch attempted to exercise that right, Allegheny Energy refused to honor it, leading Merrill Lynch to file a claim for $115 million.

Allegheny Energy filed a counterclaim for approximately $600 million, claiming breach of contract and fraudulent inducement related to the sale. Among other things, Allegheny Energy alleged that Merrill Lynch had conspired to inflate the value of the largest energy derivative contract held by the trading unit and had improperly booked accounting profits from that contract to make the sales proposal more attractive.

Counsel for Merrill Lynch retained Cornerstone Research to assist in analyzing valuation and accounting issues related to the sale. Our analysis helped establish that the value of the derivative contract was subject to tremendous fluctuations based on inputs related to energy market conditions and that Allegheny Energy was aware of this volatility and the potentially extreme high and low valuations of the contract prior to the sale.

Cornerstone Research also assisted Professor Stephen Ryan of New York University in demonstrating that the profit recognition for the energy derivative contract was consistent with the accounting standards applicable to derivative contracts.

In its decision, the court awarded the full $115 million, with interest, to Merrill Lynch, and denied any damages award to Allegheny Energy.

Cedar Bay Generating Company, L.P. v. Florida Power & Light Company
Retained by Akerman Senterfitt

Cornerstone Research staff worked on behalf of Cedar Bay, an independent power project owned by PG&E National Energy Group, in this contract dispute with Florida Power & Light (FP&L). The key issue involved how FP&L was administering the complex pricing provisions under the Purchase Power Agreement. Cornerstone Research staff supported the expert testimony of Cedar Bay witnesses relating to the economic dispatch of the facility and to the calculation of damages. The staff assisted counsel in cross-examination of FP&L expert witnesses relating to dispatching, engineering, and damages issues. The jury awarded damages to Cedar Bay based on the methodology proposed by Cedar Bay’s expert witnesses.

Logan Generating Company, L.P. v. Atlantic City Electric Company/Conectiv Energy
Retained by Kirkland & Ellis

Cornerstone Research worked on behalf of Logan Generating Company in this contract dispute with Conectiv over the determination of heat rates used in pricing energy payments under the Purchase Power Agreement. Cornerstone Research assisted attorneys for Logan in the cross-examination of Conectiv’s damages witness. Based on the errors demonstrated on cross, Conectiv’s damages expert submitted a revised and substantially reduced damages claim. Cornerstone Research also provided support for the expert testimony offered by Logan on the reasonableness of the heat rates used in recovering its fuel costs.
In re Williams Securities Litigation
Retained by Gibson, Dunn & Crutcher

Cornerstone Research supported Professor William Holder of the University of Southern California and member of the Governmental Accounting Standards Board in his review and evaluation of the appropriate financial accounting and reporting related to The Williams Companies’ multibillion-dollar energy trading and risk management activities during the class period (July 2000 through July 2002).

For financial accounting and reporting purposes, Williams was required to estimate the fair value of its energy trading contracts at each balance sheet date and recognized gains and losses resulting from increases or decreases in fair value in earnings. Plaintiffs alleged that Williams inflated earnings by using certain improper valuation approaches and methodologies to overstate fair value. Plaintiffs further alleged that Williams failed to disclose material changes to its valuation approaches and methodologies during the class period.

Based on a review and analysis of the available information, Professor Holder concluded that Williams’ financial statements were not materially misstated. Professor Holder further concluded that the types of changes Williams made to its valuation methodologies did not require disclosure for financial reporting purposes.

Professor Holder also reviewed plaintiffs’ allegations relating to weaknesses in internal controls. Based on a review and evaluation of the professional auditing standards and communications between Williams and its financial statement auditor, he concluded that there was no evidence to support an opinion that internal controls were inadequate and ineffective during the class period.
Selected Energy Experts

José Alberro
Cornerstone Research

Robert M. Anderson
Committee of Chief Risk Officers

Hendrik Bessembinder
University of Utah

Colin C. Blaydon
Dartmouth College

Severin Borenstein
University of California, Berkeley

Jeremy I. Bulow
Stanford University

Michael E. Burton
Cornerstone Research

Greg Eastman
Cornerstone Research

John M. “Neal” Foster
Formerly of Financial Accounting Standards Board

Jeffrey H. Harris
Syracuse University

William W. Holder
University of Southern California

Michael C. Keeley
Cornerstone Research

Albert “Pete” Kyle
University of Maryland

Greg Leonard
Cornerstone Research

Tracy R. Lewis
Duke University

Robert C. Lind
Cornerstone Research

Stewart Mayhew
Cornerstone Research

Howard W. Pifer III
Cornerstone Research

Craig Pirrong
University of Houston

Robert H. Porter
Northwestern University

Stephen G. Ryan
New York University

Roy J. Shanker
Consultant in Energy Markets

Kenneth J. Slater
Slater Consulting

René M. Stulz
The Ohio State University

James L. Sweeney
Stanford University

Michael D. Topper
Cornerstone Research

Robert B. Wilson
Stanford University

Selected Client Law Firms

Akin Gump Strauss Hauer & Feld
Alston & Bird
Arnold & Porter
Axinn, Veltrop & Harkrider
Baker Botts
Baker & Hostetler
Baker & McKenzie
Bartlit Beck Herman Palenchar & Scott
Bingham McCutchen
Boies, Schiller & Flexner
Cadwalader, Wickersham & Taft
Cahill Gordon & Reindel
Chadbourne & Parke
Choate Hall & Stewart
Cleary Gottlieb Steen & Hamilton
Clifford Chance
Cooley
Covington & Burling
Cravath, Swaine & Moore
Davis Polk & Wardwell
Debevoise & Plimpton
Dechert
Dentons
Dickstein Shapiro
DLA Piper
Dorsey & Whitney
Drinker Biddle & Reath
Farella Braun & Martel
Fenwick & West
Finnegan, Henderson, Farabow, Garrett & Dunner
Fitzpatrick, Cella, Harper & Scinto
Foley & Lardner
Fried, Frank, Harris, Shriver & Jacobson
Fulbright & Jaworski
Gibson, Dunn & Crutcher
Goodwin Procter
Harkins Cunningham
Haynes and Boone
Hogan Lovells
Holland & Hart
Hunton & Williams
Husch Blackwell
Irwin & Manella
Jenner & Block
Jones Day
Katten Muchin Rosenman
Kaye Scholer
Kelley Drye & Warren
Kilpatrick Townsend & Stockton
King & Spalding
Kirkland & Ellis
Kirby & Ellis
K&L Gates
Latham & Watkins
Manatt, Phelps & Phillips
Mayer Brown
McDermott Will & Emery
McKenna Long & Aldridge
Milbank, Tweed, Hadley & McCloy
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo
Mitchell Silberberg & Knupp
Montgomery McCracken Walker & Rhoads
Morvillo Abramowitz Grand Iason & Anello
Munger, Tolles & Olson
O’Melveny & Myers
Orrick, Herrington & Sutcliffe
Patton Boggs
Paul Hastings
Paul, Weiss, Rifkind, Wharton & Garrison
Pepper Hamilton
Perkins Coie
Pillsbury Winthrop Shaw Pittman
Proskauer Rose
Quinn Emanuel Urquhart & Sullivan
Reed Smith
Richards, Layton & Finger
Robins, Kaplan, Miller & Ciresi
Schulte Roth & Zabel
Shearman & Sterling
Shedd & Richter & Hampton
Sidley Austin
Simpson Thacher & Bartlett
Skadden, Arps, Slate, Meagher & Flom
Snell & Wilmer
Stroock & Stroock & Lavan
Sullivan & Cromwell
Thompson & Knight
Vinson & Elkins
Vorys, Sater, Seymour & Pease
Wachtell, Lipton, Rosen & Katz
Weil, Gotshal & Manges
Wiley Rein
Williams & Connolly
Wilkie Farr & Gallagher
Wilson Castle
Winston & Straw

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