Bruce Phillips works with clients in the electric and natural gas industries to develop, analyze, and implement strategies to improve their economic performance. He applies expertise in competitive market and regulatory analysis to business decisions involving competitive market entry and exit, environmental policy and compliance, technology commercialization, incentive regulation, wholesale and retail competition, regulated power supply planning and natural gas supply and transport market issues. During more than 25 years of consulting, he has advised companies in the electric utility, competitive power, private equity, technology development, natural gas pipeline, and gas marketing industries, as well as government agencies and non-profit institutions.

Representative projects include:

## MARKET ANALYSIS, ASSET VALUATION AND ENTRY/EXIT DECISIONS

- For a number of merchant power generators considering the acquisition or sale of generation assets, Mr. Phillips estimated the fair market value of gas-fired combined cycle, cogeneration, coal and nuclear generation facilities.
- For a major owner-operator of competitive nuclear generation, Mr. Phillips analyzed the potential value creation and risk reduction benefits of integrating a competitive retail business with the nuclear business.
- For several project development companies, Mr. Phillips evaluated the competitive economics of proposed wind generation projects, including a large multi-megawatt project and an innovative joint wind-compressed air energy storage project among others.
- For the owner of a proposed wind project of several hundred MWs, Mr. Phillips identified and analyzed a number of transmission service options including potential transmission upgrades.
- For an electric utility in the early stages of developing new nuclear and coal generation plants, Mr. Phillips evaluated the "to-go" economics of completing those projects and helped develop and support regulatory proposals to recover project development costs.
- For an electric utility, Mr. Phillips analyzed the economics of entering the competitive retail market by acquiring existing default service businesses, incrementally building a retail customer base and other strategic alternatives.
- For an international power developer seeking to acquire U.S. generating assets, Mr. Phillips evaluated investment opportunities predicated on improved management of nuclear units and integrating industrial generation with regional spot markets.

 For a merchant power company, Mr. Phillips developed and evaluated a strategy initiative involving early identification and control of uniquely undervalued generating resources.

- For a consortium of project development companies, Mr. Phillips helped create a
  new site development strategy and directed the market research to implement the
  resulting initiatives.
- For a project development company with a proprietary renewable energy technology, Mr. Phillips created a plant site identification and screening process, identified promising sites for a utility-scale project, and developed and implemented a marketing strategy for the project.

### ENVIRONMENTAL POLICY AND COMPLIANCE

- For a national environmental non-profit organization, Mr. Phillips forecast national compliance actions under the Cross State Air Pollution Rule (CSAPR) and Mercury and Air Toxics Standards (MATS) rule, including market impacts and emission consequences under a range of economic conditions.
- For a merchant power company, Mr. Phillips helped draft a whitepaper proposing a regulatory mechanism under which units subject to the MATS rule would be granted compliance extensions for reliability reasons.
- For a regional utility, Mr. Phillips assessed and developed recommendations to improve compliance plans and planning processes related to several criteria pollutants.
- For a regional utility, Mr. Phillips developed and evaluated the economics of a number of federal policy option for greenhouse gas performance standards covering new and existing electric generating units.
- For a national environmental non-profit, Mr. Phillips analyzed the economics of a federal policy proposal to retrofit the U.S. coal fleet with carbon capture and sequestration (CCS) technology and developed a reverse auction proposal to allocate the associated financial incentives in an economically efficient and effective manner.
- For a large multi-state utility with both regulated and competitive generating assets, Mr. Phillips reviewed and critiqued the client's environmental strategy, including its public positions and initiatives related to possible carbon regulations.

For a non-profit organization, Mr. Phillips directed a critique of an EPA analysis
of the cost of methane abatement associated with upstream natural gas
production processes.

- For a large regional utility planning for compliance under possible federal carbon cap and trade legislation, Mr. Phillips conducted an assessment of potential greenhouse gas offset supplies and costs.
- For a broad-based non-profit organization, Mr. Phillips directed an analysis of the economic costs and emission benefits of policy options to reduce sulfur dioxide, nitrous oxide, and carbon emissions.
- For a utility and intervener groups in a collaborative effort to design demand side management (DSM) programs, Mr. Phillips developed a screening methodology for analyzing the cost effectiveness of DSM measures and programs.

#### TECHNOLOGY COMMERCIALIZATION

- For a start-up company developing an advanced post-combustion carbon capture technology, Mr. Phillips evaluated its commercialization plans and developed recommendations to target efforts on promising market segments.
- For a project development company with a proprietary compressed air energy storage technology, Mr. Phillips conducted an economic analysis of alternative plant configurations in several regional power markets.
- For an international technology company looking to commercialize a new generation technology in the U.S., Mr. Phillips helped assess "behind the meter" and commodity generation market opportunities.

# INCENTIVE REGULATION

- For an electric utility whose customers were exposed to substantial gas price risk through the company's fuel clause, Mr. Phillips developed an innovative price risk management and production cost incentive, reducing customer fuel risks and establishing an incentive opportunity for the utility.
- For an electric utility in the midst of rate case settlement discussions, Mr. Phillips assisted in the development and evaluation of production cost incentive ratemaking initiatives.

# WHOLESALE AND RETAIL COMPETITION

For an electric utility in the Southeast region of the country, Mr. Phillips led a
multi-year effort supporting the client's efforts to restructure its business for
wholesale and retail competition, including framing corporate issues, identifying
business and regulatory options, conducting stranded cost valuations, retail
pricing and related financial forecasts, and supporting a structured decisionmaking process for its senior executives.

- For a major electric utility with operating companies in several states, Mr. Phillips helped develop and assess restructuring proposals to provide retail customers with a choice of suppliers. The effort helped lead to the passage of two state restructuring laws authorizing the introduction of customer choice.
- For another electric utility, Mr. Phillips helped develop a proposal to reform transmission pricing and the regional spot market, and drafted a white paper on the merits of market-based pricing for wholesale transactions.
- For several electric utilities, Mr. Phillips developed and presented seminars on competitive and regulatory trends, focusing on wholesale and retail competition, restructuring alternatives, and the strategic implications for utilities.

### REGULATED POWER SUPPLY PROCUREMENT

- For an electric utility faced with eroding industrial load and surplus generating capacity, Mr. Phillips identified and analyzed alternative generation and corporate options, including off-system power sales, mergers, acquisitions, and regulatory/financial restructurings. The effort led to a series of profitable and innovative long-term power sales.
- For several electric utilities faced with above-market non-utility power purchase contracts, Mr. Phillips evaluated the economics of the non-utility generation projects from the developer's perspective, designed buyout/contract reformation proposals, and supported subsequent negotiations. The effort led to successful contract renegotiations, materially reducing the client's stranded cost exposure.
- For a group of utilities with jointly owned generating units, Mr. Phillips identified, evaluated and presented recommendations regarding opportunities to reduce costs through improved coordination of maintenance scheduling, provision of backup power and resolution of minimum loading problems.
- For several electric utilities, Mr. Phillips assisted in the development and implementation of competitive bidding systems, focusing on designing new methods for quantifying non-price factors in dollar terms.

## NATURAL GAS SUPPLY AND TRANSPORT MARKETS

• For a major interstate gas pipeline company, Mr. Phillips identified opportunities to offer new and innovative transport, storage and market integration services, and helped establish a subsidiary to develop and offer these services.

- For a regional interstate gas pipeline company in financial distress, Mr. Phillips directed an analysis of the company's strategy, conducted market research to explore opportunities to sell new gas storage services, and presented recommendations regarding the outlook for profit improvement.
- For the marketing arm of a major gas producer, Mr. Phillips directed a study of likely future demands for natural gas by electric utilities and private power producers, and identified specific marketing opportunities.
- For a gas distribution company, Mr. Phillips directed a review of the utility's supply planning process and provided recommendations for improvement.
- For an owner of an existing underground gas storage facility, Mr. Phillips estimated the fair market value of the client's ownership interest in the facility.

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Mr. Phillips serves on the board of directors for the Clean Air Task Force, a nonprofit organization dedicated to restoring clean air and healthy environments through scientific research, public education, and legal advocacy.

Before helping to establish The NorthBridge Group in 1992, Mr. Phillips was a Principal with Putnam, Hayes & Bartlett, Inc. an economic and management consulting firm based at that time in Cambridge, MA.

Mr. Phillips received a B.A. from the College of the Atlantic (1978), a M.F.S. from Yale University (1984), and an M.B.A. from Yale University (1984).