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1 **I. INTRODUCTION AND QUALIFICATIONS**

2 **A. Overview**

3 Q. Please state your name, position, employer, and business address.

4 A. My name is Susan F. Tierney. I am Managing Principal at Analysis Group, Inc.,  
5 111 Huntington Avenue, Boston, Massachusetts, 02199.

6 Q. On whose behalf are you submitting rebuttal testimony?

7 A. I am submitting this rebuttal testimony on behalf of Commonwealth Edison  
8 Company (“ComEd”).

9 Q. What is the purpose of your rebuttal testimony?

10 A. I was asked by ComEd to respond to issues raised in the testimony of Theresa  
11 Ebrey from the Staff of the Illinois Commerce Commission (“ICC”).  
12 Specifically, I was asked to address appropriate regulatory standards to take into  
13 account when considering her proposals for rate treatment of ComEd’s pension  
14 asset and pension expenses. I understand that another ComEd witness, Mr. J.  
15 Barry Mitchell, will testify about the various pension-related actions taken by  
16 ComEd and by Exelon as ComEd’s pension plan sponsor. In addition, I  
17 understand that ComEd witness Ms. Kathryn Houtsma will respond to Ms.  
18 Ebrey’s testimony by focusing on the appropriate accounting and ratemaking  
19 treatment of ComEd’s pension asset and expenses.

20 **B. Professional Experience**

21 Q. Please summarize your experience relating to utility ratemaking policy.

22 A. I am a former Commissioner of the Massachusetts Department of Public Utilities,  
23 where I was directly involved in ratemaking for jurisdictional electric, gas,  
24 telephone, and water utility companies. That experience is part of my 20-plus  
25 years of work in electric industry economics, regulation and policy. Since the  
26 early 1980s, I have been a state utility regulator, federal energy policy maker,  
27 state environmental policy maker, academic, expert witness, and consultant.

28 Q. Please describe your current employment.

29 A. For the past two and one-half years, I have worked at Analysis Group, where I  
30 consult on economic and regulatory policy issues affecting the electric and gas  
31 industries. At Analysis Group, and for the seven years before that when I was a  
32 consultant at Lexecon (and its predecessor company), my clients have included  
33 energy consumers, state agencies, generating companies, electric and natural gas  
34 utilities, regional transmission organizations, power marketers, electric  
35 transmission companies, municipal and electric cooperatives, Indian tribes, and  
36 non-profit organizations. These experiences have enabled me to look at electric  
37 industry economic and regulatory policy issues from many vantage points.

38 Q. Where were you employed prior to your current position?

39 A. Prior to becoming a consultant ten years ago, I served in senior state and federal  
40 policy and regulatory positions for 13 years. Most recently, I was the Assistant  
41 Secretary for Policy at the U.S. Department of Energy, under President Clinton.  
42 Before that, I held senior positions in the Massachusetts state government as

43 Secretary of Environmental Affairs (appointed by Governor William Weld);  
44 Commissioner of the Department of Public Utilities (appointed by Governor  
45 Michael Dukakis); Executive Director of the Energy Facilities Siting Council; and  
46 Senior Economist for the Executive Office of Energy Resources. Prior to my  
47 work in state and federal government, I was an Assistant Professor at the  
48 University of California (Irvine). My complete vita is attached as Exhibit A to  
49 this testimony.

50 Q. Please describe your educational background.

51 A. I hold a Ph.D (1980) and a Masters degree (1976), both in regional planning, from  
52 Cornell University.

53 Q. Have you previously testified before the ICC?

54 A. No. I have extensive experience testifying before regulatory commissions, courts,  
55 and legislatures (including the Illinois House of Representatives), but this is the  
56 first time that I have testified before the ICC.

57 **C. Summary of Testimony and Conclusions**

58 Q. What are your conclusions in response to Ms. Ebrey's testimony?

59 A. I disagree with several of her analyses and recommendations regarding  
60 appropriate ratemaking treatment of ComEd's pension-related costs.

61 First, I disagree with her position that ComEd's \$853 million pension asset  
62 resulting from 2004-2005 pension contributions should be removed from rate  
63 base. For the reasons I describe below, the effect of her proposal is to shield  
64 ComEd's retail customers from supporting legitimate costs incurred to provide

65 them with electric service. Mr. Ebrey's focus on accounting issues sheds little  
66 light on other relevant information which the ICC should take into account in  
67 determining ratemaking treatment for this regulatory asset. I discuss these other  
68 key economic and regulatory policy issues below.

69 Additionally, I disagree with Ms. Ebrey's inconsistent logic. She  
70 recommends on the one hand that ComEd's pension asset be excluded from rate  
71 base while, on the other, argues that ComEd's consumers should realize the  
72 benefit of the lower pension expenses which resulted from the full funding of  
73 ComEd's pension obligations to beneficiaries – the very basis for the pension  
74 asset she hopes to exclude. Together, these recommendations are the ratemaking  
75 equivalent of “heads I win, tails you lose.”

76 Q. What are your recommendations regarding these pension-related issues raised by  
77 Ms. Ebrey?

78 A. I encourage the ICC to reject her proposed ratebase adjustment and allow the  
79 \$853 million pension asset in rate base. I recommend, as does Ms. Ebrey, that the  
80 ICC retain ComEd's proposed reduced pension expense. Together, these two  
81 positions are logically consistent and appropriate ratemaking treatment of  
82 pension-related assets and expenses. Additionally, these positions, if adopted by  
83 the ICC, would create incentives for utility management to make prudent pension-  
84 related decisions consistent with its public service mission.

85 Q. In preparing your testimony, what documents have you relied upon?

86 A. I have reviewed the Testimony of Staff witness, Ms. Ebrey, and the Rebuttal  
87 Testimonies of Ms. Houtsma and Mr. Mitchell. In addition to relying on my

88 experience in utility ratemaking and regulatory policy, electric industry  
89 economics, and management of public and private organizations, I have reviewed  
90 the following publicly available documents: Data Response TEE 4.01; ICC  
91 Order, Northern Illinois Gas Company, Proposed general increase in natural gas  
92 rates, Dkt. 04-0779 (Sept. 20, 2005); ICC Order, GTE North Incorporated,  
93 Proposed filing to restructure and consolidate the local exchange, toll and access  
94 tariffs with the tariffs of the former Contel of Illinois, Inc., Dkts. 93-0301/94-0041  
95 (Oct. 11, 1994); Exelon Corp, 10Q Filing for the quarter ending March 31, 2005  
96 (filed April 26, 2005); David McCarthy, "The Future of Pension Plan Design,"  
97 PRC WP 2004-12, Pension Research Council Working Paper, The Wharton  
98 School, University of Pennsylvania, <http://prc.wharton.upenn.edu/prc/prc.htm>;  
99 U.S. Department of Labor website on retirement plans (<http://www.dol.gov/dol/topic/retirement/index.htm>); U.S. General Accounting Office: Private Pensions:  
100 Recent Experiences of Large Defined Benefit Plans Illustrate Weaknesses in  
101 Funding Rules, GAO-05-294, May 2005; Testimony of David M. Walker,  
102 Comptroller General of the United States Before the Subcommittee on  
103 Government Management, Finance and Accountability, Committee on  
104 Government Reform, House of Representatives, regarding the Pension Benefit  
105 Guaranty Corporation, Structural Problems Limit Agency's Ability to Protect  
106 Itself from Risk, March 2, 2005.

108 Q. How is your testimony organized?

109 A. In Section II, I review the economic principles and regulatory policy  
110 considerations that I think should guide how the ICC considers whether and, if so,

111 how to reflect pension-related costs in ComEd's rates. Section III discusses how  
112 I applied these economic and policy principles in analyzing Ms. Ebrey's and  
113 ComEd's positions regarding recovery of proposed pension-related costs. Section  
114 IV reprises my conclusions.

115 **II. ECONOMIC AND REGULATORY POLICY PRINCIPLES**

116 Q. What are the economic and regulatory policy principles that should inform the  
117 ICC's ratemaking decisions on these pension issues?

118 A. I think there are at least three relevant policy considerations important for  
119 ratemaking on pension issues: (1) utility rates should reflect the cost of providing  
120 utility service, including labor-related costs; (2) cost-recovery policies should  
121 encourage utility management to attract and maintain a skilled workforce; and (3)  
122 cost-recovery policies should encourage utility management to make sound labor-  
123 related decisions that reflect the need to provide reliable and efficient electric  
124 service, consistent with the company's public service obligations.

125 Q. Please explain your first principle, that utility rates should reflect the cost of  
126 providing utility service.

127 A. The fundamental and well-known economic principle underlying cost-of-service  
128 ratemaking is that rates for utility services should reflect the cost of providing  
129 those services. This accomplishes several economic objectives, such as having  
130 consumers see and pay for the cost of producing a product, and suppliers  
131 compensated for the expenses and capital costs they incur in providing products  
132 and services to consumers.

133           Among these costs are labor-related costs. These include both the direct  
134 and indirect costs to compensate the utility's workforce including salary expenses  
135 and any deferred compensation in the form of a pension. Without a pension plan,  
136 workers would be expected to demand higher compensation in the form of wages,  
137 salaries and/or other benefits.

138           Consumers should support rates that reflect these direct and indirect costs,  
139 both to see properly-priced utility services and to align the incentives of the utility  
140 with consumers' need for reliable and efficient electric distribution service.

141 Q   Please explain your second principle, that cost-recovery policies should  
142 create incentives for utility management to attract and maintain a skilled  
143 workforce.

144 A.   Provision of utility service requires competent labor, and rates for utility service  
145 should encourage the utility to attract and retain a stable and well-qualified  
146 workforce. Cost-recovery incentives, for example, motivate utility management  
147 to behave in a particular way – either positively, through a reward, or negatively,  
148 through a punishment or penalty if a particular action is taken. In the case of  
149 pension-related costs, this might mean providing ratemaking incentives for the  
150 utility to maintain a skilled and experienced labor force, thereby benefiting  
151 consumers. This underpins ComEd's ability to serve electric customers, including  
152 during emergency conditions where the workforce demonstrates a high sense of  
153 duty to the mission (e.g., getting the wires back in service). Pensions, or deferred  
154 wages, can be and often are used to induce employees to stay with the company,  
155 thus reducing training and recruiting costs and providing the benefit of retention

156 of job-specific skills. Utility commissions typically recognize this through  
157 decisions to allow recovery of reasonable pension-related costs as just and  
158 reasonable.

159 Q. Please explain your third principle, that utility cost-recovery policy should  
160 encourage utility management to make sound labor-related decisions that reflect  
161 the responsibilities of providing electric service.

162 A. Cost-recovery policies should create incentives for efficient management of assets  
163 related to such labor-related obligations. These include encouraging the utility to  
164 “do the right thing” regarding pension costs – that is, making sure that the  
165 workforce does not experience undue risk associated with an inadequately funded  
166 pension plan, held in trust for them by the utility. Doing the right thing means  
167 that the employees’ pension fund is supported financially and managed efficiently  
168 in order to provide value to the workforce who, in turn, provide value to  
169 customers. Doing the right thing means that the utility meets its fiduciary  
170 responsibility to provide sufficient funds to the pension trust to meet its  
171 compensation promises to the workforce under a range of financial circumstances  
172 that might affect the utility, as well as its legal responsibilities to make good on  
173 those compensation commitments. Rather than simply satisfying minimum  
174 requirements, “doing the right thing” means following best practices in meeting  
175 pension commitments, taking into consideration a balancing of economic,  
176 financial, legal, accounting, workforce, and consumer interests.

177 **III. ANALYSIS OF APPROPRIATE RATEMAKING TREATMENT OF**  
178 **COMED'S PENSION-RELATED COSTS.**

179 **A. Appropriate Ratemaking Treatment**

180 Q. Given the economic and policy principles that you articulated above, what types  
181 of pension-related costs should be reflected in ComEd's rates?

182 A. There are several aspects of pension-related costs that need to be taken into  
183 consideration in the ratemaking process. ComEd's witness Mr. Mitchell describes  
184 them from the point of view of ComEd's management. Another witness, Ms.  
185 Houtsma, describes these components from an accounting point of view. I  
186 describe them here more from a regulatory policy perspective.

187 Q. Please describe these regulatory policy issues affecting ratemaking treatment of  
188 ComEd's pension-related costs.

189 A. The following represent key ratemaking considerations for these pension costs.

- 190     ▪ Because pension costs are part of its workforce compensation, ComEd should  
191       be allowed to recover its reasonable and appropriate pension costs in rates.
- 192     ▪ Where prudent management decisions have resulted in the establishment of a  
193       direct benefit pension plan, the utility, as the pension plan sponsor, has the  
194       fiduciary responsibility to efficiently manage it in order to meet its  
195       compensation promises to the workforce.
- 196     ▪ If the utility assigns to a third party the responsibility for day-to-day  
197       management of the pension trust fund, this asset is nonetheless managed on  
198       behalf of the utility and for the benefit of its pension beneficiaries.

- 199           ▪ At any point in time, the market value of the prepaid contributions in the  
200 pension fund may be over or under the pay-out obligations. This can result  
201 from a variety of factors such as interest rates or stock market returns that  
202 differ from the assumptions used to establish pay-in and pay-out schedules for  
203 the pension fund.
- 204           ▪ When a utility acts prudently in using its funds for contributions to make  
205 prepayments into the pension trust, such payments should be put into ratebase.  
206 Such payments are appropriate costs associated with provision of utility  
207 service to consumers.
- 208           ▪ Rates should also include a pension expense item to collect from customers  
209 contributions to support pension costs for the test year.
- 210           ▪ At any point in time, the pension asset in a utility's ratebase may be either in  
211 net positive or net negative, depending upon the extent to which it is larger  
212 than or less than the accumulated contributions from customers in the rates  
213 they pay for their electric service.

214           **B.     Response to Ms. Ebrey's Specific Arguments**  
215                     **Regarding ComEd's Pension-Related Costs**

216    Q.     In light of your testimony above, how do you respond to Ms. Ebrey's  
217 testimony that the \$853 million pension asset should not be included in rate base  
218 because the contributions were discretionary?

219    A.     In my view, this position is shortsighted and inequitable because it would result in  
220 ComEd's shareholders subsidizing consumers. It would prevent ComEd from

221 earning a return on funds used to support prudent pension plan management for  
222 the ComEd workforce.

223 While Ms. Ebrey states that “it is admirable that Exelon takes its  
224 responsibility seriously to fully fund its pension plan,” in effect she argues that a  
225 company should not be compensated for actions that go beyond the minimum  
226 requirement in the law. The effect is to discourage use of best practices, where  
227 such provides value to the enterprise, its workforce, and its ability to meet its  
228 public service obligations in a reliable and efficient way.

229 I have two concerns with Ms. Ebrey’s position. First, from an economic  
230 and regulatory policy point of view, her focus is far too narrow with respect to the  
231 discretion question. The promise to pay a pension is akin to (if not exactly like) a  
232 contract, with promises and commitments by the employer to include as part of  
233 compensation for today’s labor services a deferred payment in the form of a  
234 pension. In practice, a company has some “discretion” as to how and when it  
235 funds its pension promises and commitments, just like a company has discretion  
236 in meeting its other binding financial or public service commitments. To say that  
237 a company has “discretion” in attracting and maintaining a high-quality, dedicated  
238 and loyal workforce, and in meeting its financial commitments to them in an  
239 efficient and responsible fashion, is to say that the utility has discretion in whether  
240 it sends out crews after hours and under difficult emergency conditions to get the  
241 wires and poles back in service after a snow storm. Encouraging a utility  
242 company to meet its commitments to the workforce seems good economic,  
243 regulatory and public policy – not only from a labor-relations and community-

244 service point of view, but also from the point of view of creating incentives for a  
245 utility to meet its obligation to serve customers in a reliable fashion.

246 Second, perverse financial incentives would be created by adopting Ms.  
247 Ebrey's recommendations. It would be bad policy to encourage a utility with a  
248 pension plan to fund only the minimum funding requirements and in fact deny it  
249 cost recovery when it prudently funds more than that level. Although I am not an  
250 expert on the Employee Retirement Income Security Act ("ERISA"), I understand  
251 that it does not require pension plan sponsors to fully fund their plans at all times.  
252 Technically, therefore, a sponsor has discretion about whether to fund the plan  
253 above the minimum requirements at any time. But exercising discretion so as to  
254 simply satisfy minimum requirements is not the behavior or outcome that  
255 ratemaking policy should encourage<sup>1</sup>. Recent history has shown many examples  
256 where major corporations ran into trouble after funding their pension plans at  
257 minimum levels and then finding themselves, for whatever reason, in financial  
258 distress and unable to meet their pension commitments. There are some infamous  
259 examples from the airline, steel and automobile manufacturing industries in recent  
260 years, where companies had to freeze their defined benefit pension plans or even  
261 default on their pension commitments, with the Pension Benefit Guarantee  
262 Corporation having to pick up the pieces and with many retirees experiencing  
263 substantially reduced retirement benefits.

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<sup>1</sup> As another example, in responding to the need to expand a network delivery system, it is often both operationally beneficial and the lowest cost in the long-run to implement a design that goes beyond the minimum expansion needed at just that time. Being forced to build continually to just the minimum would deny the utility needed flexibility, a measure of resiliency, and the ability to time and size new investments optimally.

264           These actions are costly to companies, to their workers, to the  
265 communities in which they reside, and to taxpayers. It would also be costly to the  
266 utility and its customers, if it happened in this industry. There could be  
267 diminished service, and higher cost of capital. The utility workforce would feel  
268 unfairly treated. The value of their deferred compensation to workers is tied to  
269 payment risk (e.g., is the pension fund is fully funded? If not, what is the credit  
270 and/or financial risk of the company?). According to this perspective, prudent  
271 company actions to fully fund their pension plans and maintain sound financial  
272 status reduce workers' concerns about payment risk and, all else equal, lower  
273 labor-related costs of providing electric service.

274           To avoid these costs, it is appropriate for just and reasonable rates to  
275 reflect cost recovery policies that provide incentives for efficient and responsible  
276 utility management behavior. This is where discretion should be supported by  
277 ratemaking policy, rather than penalized, as Ms. Ebrey's suggestion would do.

278 Q.   How do you respond to Ms. Ebrey's testimony that that \$853 million pension  
279 asset should not be included in rate base because it does not represent funds  
280 within the Company's disposition and in which it has an interest?

281 A.   I disagree with this perspective, because it ignores the inherent nature of pension  
282 funds and the role of a fiduciary in prudently managing them on behalf of  
283 workforce beneficiaries. In laymen's terms, a direct benefit pension plan  
284 establishes a trust fund that receives and manages the prepaid contributions that  
285 represent deferred compensation that firm owes to workers. As the U.S.  
286 Department of Labor has stated, "The primary responsibility of fiduciaries is to

287 run the plan solely in the interest of participants and beneficiaries and for the  
288 exclusive purpose of providing benefits and paying plan expenses.”  
289 ([www.dol.gov/dol/topic/retirement/fiduciaryresp.htm](http://www.dol.gov/dol/topic/retirement/fiduciaryresp.htm))

290 Thus, the point is to render the trust fund beyond the disposition of the  
291 plan sponsor. So, to penalize a utility by not allowing cost recovery of its pension  
292 funds because these funds are not “funds within the Company’s disposition”  
293 seems inconsistent with the intent of direct contribution pension plans as well of  
294 the expectations of the workforce benefited by them. If a plan sponsor had the  
295 ability to use the funds held in trust for another purpose, then it would create  
296 uncompensated risk for workers, who in turn would demand other forms of  
297 compensation for providing their labor to the firm and the customers it services.  
298 If regulators decided for this reason not to allow recovery of pension assets in  
299 rates, then in effect they would be saying that they no longer support direct  
300 benefit pension plans for utility workers.

301 For these reasons, I encourage the ICC to set aside this argument of Ms.  
302 Ebrey for not allowing ComEd’s proposed \$853 million asset in rate base.

303 Q. Finally, how do you respond to Ms. Ebrey’s testimony that that \$853  
304 million pension asset should not be included in rate base because it is not matched  
305 with the offsetting pension liability attributable to ComEd?

306 A. I understand from Ms. Houtsma’s testimony that ComEd’s portion of the liability  
307 on Exelon’s books will ultimately be recognized on ComEd’s books in a  
308 systematic and gradual fashion, consistent with relevant accounting standards. No  
309 such recognition occurred in the test year or in a prior year.

310           Moreover, from a ratemaking point of view, the effect of Ms. Ebrey's  
311 suggestion is to ignore the fact that the \$853 million represents shareholder  
312 monies contributed on behalf of ComEd and its workforce commitments and that  
313 such contributions are legitimate costs of providing reliable and efficient electric  
314 distribution service. Ratepayers have not previously paid for these contributions  
315 through pension expenses. Presumably, over time, they will. Denying the  
316 inclusion of these costs in rate base would mean that utility shareholders are not  
317 properly compensated by ratepayers for the use of shareholder capital on  
318 ratepayers' behalf. This would be inconsistent with just and reasonable rates.

319 Q. Do you have any other comments about Ms. Ebrey's testimony on pension-related  
320 costs?

321 A. Yes. The effect of her recommendations is to "have it both ways." By that, I  
322 mean that on the one hand Ms. Ebrey supports a pension expense level that is \$30  
323 million lower than it would have been if the contributions that fully funded the  
324 pension plan had not been made. Ms. Ebrey supports the reduced pension  
325 expense because it reflects test year expenses adjusted for known and measurable  
326 changes. At the same time, however, she does not want ComEd's ratebase to  
327 reflect the prepaid contribution to fully fund the pension plan, which gave rise to  
328 the lower pension expenses experienced in the test year. On principle, this is  
329 logically inconsistent and would result in rates that have shareholders subsidizing  
330 consumers for some of the costs associated with providing reliable and efficient  
331 electric distribution service to them. This would not produce just and reasonable  
332 rates, since rates would not reflect the cost of providing electric service.

333 **IV. CONCLUSIONS**

334 Q. Please summarize your conclusions.

335 A. As I discuss above, the bedrock economic principle underlying the pension-cost  
336 issue is that prices should reflect the costs of providing the service offered. The  
337 ratemaking principle that follows is that rates charged for providing tariffed  
338 service should reflect appropriate and prudent costs to provide that service. The  
339 regulatory policy principle is to use rate recovery policies to encourage efficient  
340 utility management decisions consistent with public service obligations.

341 Using these principles, the rates that ComEd charges its consumers should  
342 reflect a return of and on the investment made to prepay the deferred  
343 compensation plan offered to and expected by ComEd's workforce in exchange  
344 for helping to provide electric distribution service to customers.

345 This is accomplished by adopting ComEd's proposed inclusion of the  
346 \$853 million pension asset in rate base, along with the proposed pension expense  
347 and other proposed pension-related costs not in dispute in this proceeding. This is  
348 consistent with charging ComEd's retail customers just and reasonable rates to  
349 cover the costs of providing them with electric distribution service.

350 Q. Does that conclude your testimony?

351 A. Yes.

352

## CURRICULUM VITA

353

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354

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355

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359

360 Dr. Tierney, a Managing Principal at Analysis Group, is an expert on energy policy and  
361 economics, especially in the electric and gas industries. She has consulted to business,  
362 industry, government, non-profit and other organizations on energy markets, economic and  
363 environmental regulation and strategy, and energy facility projects. Her expert witness,  
364 business consulting and arbitration services have involved industry restructuring, market  
365 analyses, wholesale and retail market design, contract disputes, resource planning and  
366 analysis, asset valuations, regional transmission organizations, the siting of generation and  
367 transmission and natural gas pipeline projects, natural gas markets, electric system reliability,  
368 and environmental policy and regulation. She has participated as an expert and advisor in  
369 civil litigation cases, regulatory proceedings before state and federal agencies, arbitrations,  
370 negotiations, mediations, and business consulting engagements.

371 Prior to joining Analysis Group, she was Senior Vice President at Lexecon. She has also  
372 served as the Assistant Secretary for Policy at the U.S. Department of Energy, appointed by  
373 President Bill Clinton and confirmed by the U.S. Senate. She was also Secretary for  
374 Environmental Affairs in Massachusetts under Governor William Weld, and Commissioner at  
375 the Massachusetts Department of Public Utilities, to which she was appointed by Governor  
376 Michael Dukakis. She was executive director of the Massachusetts Energy Facilities Siting  
377 Council. She recently served as chair of the Massachusetts Ocean Management Task Force,  
378 appointed by Governor Romney.

379 Dr. Tierney has authored numerous articles and speaks frequently at industry conferences.  
380 She serves on a number of boards of directors and advisory committees, including the  
381 National Commission on Energy Policy. She is chairman of the board of the Energy  
382 Foundation and the board of Clean Air – Cool Planet; a director of Catalytica Energy Systems  
383 Inc., the Northeast States Clean Air Foundation, and the Climate Policy Center; and a member  
384 of the Harvard Electric Policy Group, the Massachusetts Renewable Energy Trust Advisory  
385 Council, the Environmental Advisory Council of the New York Independent System  
386 Operator, and the China Sustainable Energy Program's Policy Advisory Council. She was  
387 previously chair of the Electricity Innovations Institute, a director of the Electric Power  
388 Research Institute and as a member of the Advisory Council of the New England Independent  
389 System Operator. She has taught at the University of California at Irvine, and she earned her  
390 Ph.D. and M.A. degrees in regional planning at Cornell University and her B.A. at Scripps  
391 College.

392 **EDUCATION**

393  
394 1980 Ph.D. in Regional Planning, Public Policy, Cornell University, Ithaca, NY  
395 Dissertation: *Congressional policy making on energy policy issues*  
396  
397 1976 M.A., in Regional Planning, Public Policy, Cornell University, Ithaca, NY  
398  
399 1973 B.A. in Art History, Scripps College, Claremont, CA  
400  
401 1971-72 Studied political science, L'Institut d'Etudes Politiques, Paris, France  
402  
403

404 **PROFESSIONAL EXPERIENCE**

405  
406 2003-present Analysis Group, Inc., Boston, MA  
407 *Managing Principal*  
408 1999-2003 Lexecon, Inc., Cambridge, MA (formerly The Economics Resource Group, Inc.)  
409 *Senior Vice President*  
410  
411 1995-1999 Economics Resource Group, Inc., Cambridge, MA  
412 *Principal and Managing Consultant*  
413  
414 1993-1995 U.S. Department of Energy, Washington, DC  
415 *Assistant Secretary for Policy*  
416  
417 1991-1993 Commonwealth of Massachusetts, Executive Office of Environmental Affairs,  
418 Boston, MA  
419 *Secretary of Environmental Affairs*  
420  
421 1988-19991 Commonwealth of Massachusetts, Department of Public Utilities, Boston, MA  
422 *Commissioner*  
423  
424 1984-1988 Commonwealth of Massachusetts, Energy Facilities Siting Council, Boston, MA  
425 *Executive Director*  
426  
427 1983-1984 Commonwealth of Massachusetts, Executive Office of Energy Resources,  
428 Boston, MA  
429 *Senior Economist*  
430  
431 1982-1983 Commonwealth of Massachusetts, Energy Facilities Siting Council, Boston, MA  
432 *Policy Analyst*  
433  
434 1982 National Academy of Sciences, Washington, DC  
435 *Researcher*  
436  
437 1978-1982 University of California at Irvine, Irvine, CA  
438 *Assistant Professor*  
439  
440

441

442 **SELECTED CONSULTING EXPERIENCE**

443

444 ▪ **Various confidential engagements** involving power sales agreements, gas supply contracts,  
445 advisory services on gas and electric matters, and market power and monitoring issues.

446

447 ▪ **Commonwealth Edison Company**

448 Provided testimony on economic principles associated with single-price auction design versus  
449 pay-as-bid auction design, for the procurement of wholesale power supplies to meet the needs  
450 of retail all-requirements customers. (2006-present)

451

452 ▪ **Major Electric Company**

453 Provided analysis of designs of mandatory carbon control policies (2005-present).

454

455 ▪ **Electric utility company**

456 Performed independent evaluator services in procurement for power resources (2005-  
457 present).

458

459 ▪ **Power Generation Company**

460 Provided analysis of product market development in MidWest and Eastern RTOs (2005).

461

462 ▪ **New England Energy Alliance**

463 Prepared a white paper on energy infrastructure needs in the New England states. (2005-  
present)

464

465 ▪ **Committee on Regional Electric Power Cooperation (of the Western Interstate Energy**  
466 **Board)** Provides research and advising with respect to market monitoring and assessment for  
the Western wholesale electric markets. (2005-present)

467

468 ▪ **Southern California Edison Company**

469 Provided Independent Evaluator services for a long-term generation procurement (2005).

470

471 ▪ **LNG / Interstate Gas Pipeline project**

Prepared regional market study for the project (2004-2005).

472

473 ▪ **Electric Generating Company**

474 In a contract dispute, provided expert witness services relating to whether changes in a  
region's wholesale power market rules nullified a power sales agreement. (2004-2005)

475

476 ▪ **Louisville Gas & Electric and Kentucky Utilities**

477 For two vertically integrated electric companies, provided expert witness services in a state  
478 investigation of which regional transmission approach satisfies state policy objectives (2004-  
present).

479

480 ▪ **Independent Generating Company**

481 For a power company owned by commercial lenders in a Northeast power market, provided  
482 consulting services to monitor state regulatory policies and actions with respect to utility  
regulation and environmental regulation, and legislation affecting power plants. (2004)

483

484 ▪ **Major Electric and Gas Company**

485 Performed confidential study of the benefits, costs and current conditions in certain wholesale  
and retail electric power markets. (2004-2005)

486

- 487   ▪   **Regional Transmission Organization**  
488   For a confidential project, analyzes market monitoring and mitigation approaches (2004-  
489   2005).
- 490   ▪   **Major Commercial Bank**  
491   For a confidential project, advise with regard to electric industry restructuring and  
492   profitability of large energy marketer and trading organization (2004-2005)
- 493   ▪   **Consumer Energy Council of America**  
494   For a group of electric industry market participants, regulators, and interest groups, prepared  
495   white papers on the need for transmission enhancements in U.S. power markets. (2004)  
496
- 497   ▪   **Retail electric company**  
498   Provides confidential analysis of business models and regulation approaches for providing  
499   retail electric service in the state (2004).  
500
- 501   ▪   **Independent system operator**  
502   Provided confidential analysis and research on alignment of retail and wholesale market  
503   policies (2004).  
504
- 505   ▪   **State attorney general**  
506   Provided expert witness services with regard to state resource adequacy and planning  
507   practices (2004).
- 508   ▪   **Pacific Gas & Electric Company**  
509   Provided expert witness services relating to the public benefits of the settlement between  
510   PG&E and the California Public Utility Commission, to enable PG&E to emerge from  
511   bankruptcy. (2003)
- 512   ▪   **Independent power company**  
513   Provided consulting advice on economics of compliance strategies for air and water permits  
514   (2003)
- 515   ▪   **Major public utility company**  
516   Provided expert advisory services to a buyer of power supplies relating to the pricing and  
517   other terms for a long-term purchase power agreement. (2003)
- 518   ▪   **Duke Power**  
519   Provided expert advisory services relating to state rate-making and other regulatory practices.  
520   (2003)  
521
- 522   ▪   **Exelon Generation**  
523   Provided strategic advice and analytic services relating to market conditions affecting the  
524   client's generating assets in New England. (2003)
- 525   ▪   **Entergy Services Inc.**  
526   Provides services as the independent monitor of Entergy's Fall 2002, Spring 2003 and Fall  
527   2003 Requests for Proposals for Supply-Side Resources. (2002-present)
- 528   ▪   **Power generation company in New England**  
529   Provided expert testimony in contract dispute regarding allocation of uplift costs in an  
530   agreement concerning the supply of wholesale power for standard offer service. (2002)

- 531 ▪ **Connecticut Light and Power Company**  
532 Provided expert testimony in contract dispute regarding allocation of congestion costs in an  
533 agreement concerning the supply of wholesale power for standard offer service. (2002 -  
534 2003)
- 535 ▪ **Ocean State Power**  
536 Provided arbitration services in a dispute regarding a gas purchase contract between Ocean  
537 State Power and ProGas Ltd. (2002-2003)
- 538 ▪ **Regional independent system operator**  
539 Provided strategic advice on regional transmission organization strategy. (2002)  
540
- 541 ▪ **PJM Interconnection**  
542 Provided advice to the appointed mediator as part of the Alternative Dispute Resolution  
543 process, in a dispute involving PJM and a market participant. (2002)
- 544 ▪ **Duke Energy Corporation**  
545 Provided analysis on strategic issues in gas and electric regulatory policy for Duke Energy's  
546 corporate office, including with regard to code of conduct issues, wholesale competition,  
547 regional transmission organization policy. (2001-2002)
- 548 ▪ **Pacific Gas and Electric Corporation**  
549 Provided expert witness testimony in proceedings of the Federal Energy Regulatory  
550 Commission on public benefits of the proposed restructuring of PG&E assets as part of its  
551 emergence from bankruptcy. (2001-2002)
- 552 ▪ **Massachusetts Renewables Trust**  
553 Provided assistance in support of the Trust's renewables and power quality program. (2001-  
554 2002)  
555
- 556 ▪ **Major electric holding company**  
557 Prepared an analysis of the regulatory policies for reviewing merger applications in states  
558 where potential merger candidates are located. (2001)
- 559 ▪ **Western Massachusetts Electric Company**  
560 Provided expert testimony in contract disputes regarding allocation of congestion costs in  
561 agreements concerning the supply of wholesale power for standard offer service. (2001-2002)
- 562 ▪ **The Energy Foundation**  
563 Researched and wrote a white paper on California's process for permitting new power plants.  
564 (2001)
- 565 ▪ **Cross-Sound Cable Company**  
566 Provided expert testimony regarding public benefits of proposal to construct merchant  
567 transmission facility across Long Island Sound. (2001-2002)
- 568 ▪ **Major independent power company**  
569 Provides expert witness support in litigation surrounding power plant development project,  
570 involving viability of project's environmental and siting permitting. (2001 - 2004)
- 571 ▪ **MASSPOWER Inc.**  
572 Mediator in a contract dispute involving pricing of power purchases. (2001)
- 573 ▪ **NRG Energy and Dynegy**  
574 Provided expert witness support in regulatory proceeding to review these companies'  
575 acquisition of power plants being divested by Sierra Pacific and Nevada Power. (2001)

- 576 ▪ **Occidental Chemical Corporation**  
577 Provided expert witness support and economic analysis of a major electric utility's  
578 transmission policies and practices, and review of the proposed RTO. (2000)
- 579 ▪ **PP&L Global**  
580 Provided economic and environmental analysis and expert witness support for proposal to  
581 build the Kings Park Energy power plant in Long Island, New York. (2000)
- 582 ▪ **Calpine Corporation**  
583 Provided economic and environmental analysis and expert witness support for proposal to  
584 build the Wawayanda power project in Rockland County, New York (2000)
- 585 Provided environmental analysis and expert witness support for proposal to build the  
586 Towantic power plant in Oxford, Connecticut. (2001)
- 587 ▪ **American National Power, Calpine, El Paso, NRG Energy, Sithe, Southern Energy**  
588 Provided support for the development of a proposal for a Regional Transmission  
589 Organization for New England. (2000 - 2001)
- 590 ▪ **Duke Energy/Maritimes and Northeast Pipeline**  
591 Provided expert reports on the market and environmental impacts of new natural gas  
592 infrastructure and supply in New England and the public benefits of the Maritimes and  
593 Northeast Phase III and Hubline project. (2000-2003)
- 594 ▪ **Arkansas Electric Distribution Cooperatives and Arkansas Electric Cooperative**  
595 **Corporation**  
596 Provided expert witness support and analysis on economic and public policy issues associated  
597 with various aspects of wholesale and retail competition in Arkansas. (2000 - 2001)
- 598 ▪ **TransÉnergie U.S.**  
599 Provided expert testimony regarding public benefits of proposal to construct merchant  
600 transmission facility. (2000 - 2001)
- 601 ▪ **Conectiv**  
602 Provided strategic wholesale market analysis and support for procurement of supplies for  
603 distribution utility company's provision of Basic Generation Services to retail customers.  
604 (2000)
- 605 ▪ **SCS Energy Corp. – Astoria Energy**  
606 Provided economic and environmental analysis and expert witness support for proposal to  
607 build new power plant in New York City. (2000 - 2001)
- 608 ▪ **HEFA Power Options**  
609 Provided strategic advice regarding wholesale electricity market for retail buyers' group.  
610 (2000-2003)
- 611 ▪ **Major real estate development company**  
612 Provided strategic support for configuration of electric and gas infrastructure for large  
613 regional mixed-use development project. (2000 - 2001)
- 614 ▪ **Investment company**  
615 Provided strategic advice to investment company with regard to potential investment in major  
616 electric generating equipment manufacturing company. (2000)
- 617 ▪ **Major independent power company**  
618 Provided economic and environmental support for company's application to construct a  
619 merchant power plant in Florida. (2000)

- 620 ▪ **Major railroad company**  
621 Provided expert witness support on economic and regulatory policy issues for railroad in state  
622 regulatory proceeding on a proposed utility merger. (2000)
- 623 ▪ **Coalition of Wireless Telecommunications Carriers**  
624 Prepared an expert report on economic benefits of wireless telecommunications. (2000)  
625
- 626 ▪ **Major brownfield property developer**  
627 Provided economic valuation of property to be developed as site for new electric generating  
628 facility. (2000)
- 629 ▪ **Fitchburg Gas and Electric Company**  
630 Provided litigation support for a gas and electric company on rate design policy. (2000)
- 631 ▪ **Consortium of electric companies**  
632 Provided economic analysis, contract review, and litigation support for a consortium of  
633 electric companies with power purchase agreements with PURPA projects. (1999)
- 634 ▪ **FirstEnergy Corp.**  
635 Provided expert witness support regarding generation asset valuation and the impacts of a  
636 new electric industry restructuring law on the company. (1999 - 2000)
- 637 ▪ **Ozone Attainment Coalition**  
638 Provided strategic analysis and advice on electric system reliability issues relating to electric  
639 companies' implementation of 2003 NOx requirements issued by the U.S. EPA. (1999)
- 640 ▪ **Municipal electric department**  
641 Provided expert witness services and analysis of the economics and need for a new natural  
642 gas pipeline proposed to serve an existing electric power plant in Massachusetts. (1998 -  
643 2001)
- 644 ▪ **Seneca Nation**  
645 Provided expert analysis and strategic advice regarding the value of transmission rights of  
646 way, in a dispute with an electric utility company. (1998 - 2000)
- 647 ▪ **Major cable company**  
648 Provided strategic advice in a series of regulatory and court cases involving inter-affiliate  
649 transactions of an electric utility company entering into competitive telecommunications and  
650 cable markets. (1998)
- 651 ▪ **Major electric utility company**  
652 Provided expert witness support regarding structural changes in the electric industry, in  
653 litigation pertaining to the company's restructuring plans. (1998 - 1999)
- 654 ▪ **Sithe Energies, Inc.**  
655 Provided strategic advice and regulatory support on a variety of issues (market analysis,  
656 transmission and ISO issues, federal and state market rules, legislation, siting, environmental  
657 strategy) relating to the company's participation in the New England, New York, and PJM  
658 markets. (1997 to 2003)  
659 Provided transition assistance to the company in its acquisition and integration of  
660 approximately 2,000-megawatts of existing fossil fuel generation from Boston Edison  
661 Company. (1997 - 1998)  
662 Provided transition assistance to the company in its acquisition and integration of  
663 approximately 4,100-megawatts of existing fossil and hydroelectric generation capacity from  
664 GPU Genco. (1998 - 1999)

- 665 Provided support for the company's participation in electricity product markets structured by  
666 NEPOOL and operated by the Independent System Operator-New England, the New York  
667 power pool and the New York ISO, and PJM. (1997 to 2002)
- 668 Provided strategic project development advice and expert witness support for the company's  
669 applications to construct three natural gas merchant power plants (totalling 2865 megawatts)  
670 in Everett, Weymouth, and Medway, Massachusetts. (1998 to 2001)
- 671 Provided strategic guidance and regulatory support regarding design of air quality  
672 improvement plan for existing fossil units at Mystic Station. (1998 to 2001)
- 673 Provided strategic guidance regarding company's natural gas-fired merchant power plant  
674 development projects in Ontario, Canada. (2000 to 2001)
- 675
- 676 ▪ **Various private electric companies, state legislative committees, gas companies, electric**  
677 **asset investor groups**
- 678 Provided workshops and presentations on changes under way in the electric industry, with  
679 focus on issues of strategic importance to these particular decision-makers and stakeholders.  
680 (1995 - present)
- 681 ▪ **Natural Resources Canada**
- 682 Prepared a white paper on the implications for electric system reliability in Canada that are  
683 associated with restructuring the electric industry in the United States. (1999)
- 684 ▪ **Cummins Engine Company, Inc.**
- 685 Provided strategic analysis on implications of national energy and environmental policies for  
686 the Company's long-term business opportunities. (1999)
- 687 ▪ **Electric utility company**
- 688 Provided advice and regulatory support with regard to the economics and prudence of an  
689 existing long-term power purchase agreement. (1998)
- 690 ▪ **National Association of Regulatory Utility Commissioners**
- 691 Assisted the Executive Director and NARUC leadership in updating its strategic plan and in  
692 preparing a business plan for its implementation. (1998)
- 693 ▪ **State energy office**
- 694 Assisted the office in analyzing options for supporting renewable resource development in  
695 the state and in designing a market-based strategy to implement a new legislative mandate for  
696 a "renewables portfolio standard." (1997-1998)
- 697 ▪ **U.S. Generating Company (now PG&E Generating Company)**
- 698 Provided analysis of the economic, reliability, and environmental benefits to the host state  
699 and region of a new merchant power generation facility: the 360-megawatt Millennium  
700 project in Massachusetts. Provided expert witness testimony on the results of this analysis to  
701 the Massachusetts Energy Facility Siting Board. (1996-1997)
- 702 Provided analysis of the economic, reliability, and environmental benefits of a new merchant  
703 power generation facility: the 792-megawatt Lake Road Generating Project in Connecticut.  
704 Provided expert witness testimony on the need for this project to the Connecticut Siting  
705 Board. (1997-1998)
- 706 ▪ **Pennsylvania Power & Light Company**
- 707 Provided strategic guidance, economic and policy analysis, and regulatory support for electric  
708 utility company as it developed and proposed its plan for restructuring its company for retail  
709 competition. Issues and tasks included electricity market price estimation, rate design,

- 710 revenue analysis, consumer protection, corporate structure, and regulatory strategy. Provided  
711 expert witness testimony on rate design policy issues. (1996-1998)
- 712 ▪ **Major diversified electric equipment company**  
713 Provided strategic advice and analysis on market opportunities and risk in various regions of  
714 the U.S. electric industry, under numerous restructuring scenarios. (1996-1997)
  - 715 ▪ **Major nationwide electricity consumer**  
716 Conducted analysis of buying options and strategies for acquisition of electricity services in  
717 states with customer choice in retail generation markets. Analysis included review and  
718 comparison of eight states' implementation of customer choice, from the perspective of how  
719 retail rate and function are unbundled, how the commercial and reliability functions are  
720 structured in the regional generation market, and how the customer should approach the  
721 market to competitively procure power across various states. (1997)
  - 722 ▪ **National Council on Competition in the Electric Industry**  
723 Prepared a Briefing Paper on Regional Issues in Electric Industry Restructuring, for the  
724 NCCFI—a joint project of the National Association of Regulatory Utility Commissioners, the  
725 National Conference of State Legislatures, the U.S. Department of Energy, and the U.S.  
726 Environmental Protection Agency. Analyzed regional issues, including electric system  
727 reliability, transmission access and siting, environmental protection, market power, interstate  
728 reciprocity in retail access policies, and regulation of multi-state electric utility companies.  
729 (1997)
  - 730 ▪ **Major western coal company**  
731 Analysis of western states' electric industry restructuring policies and market prices for  
732 power in various states within the Western Systems Coordinating Council area. (1996-1997)
  - 733 ▪ **Major gas pipeline company**  
734 Provided analysis of market structures and prices for generation and delivery services in  
735 electric service territories where the gas pipeline would locate facilities that use electricity.  
736 (1997)
  - 737 ▪ **Major electric supply company**  
738 Provided analysis of regional electricity market conditions to support this company's analysis  
739 of the value of various utility assets that were being divested as part of an electric utility  
740 company's corporate restructuring. (1997)
  - 741 ▪ **Massachusetts Division of Energy Resources**  
742 Analyzed Boston Gas Company's proposal for unbundling its retail service, its proposal for  
743 performance-based rates, and its plan for departing the merchant function. Provided analytic,  
744 policy and negotiation support on gas industry restructuring issues in a variety of cases.  
745 (1996-1998)
  - 746 ▪ **Massachusetts Division of Energy Resources**  
747 Assisted the state's energy office in developing policies for establishing and implementing a  
748 statewide fund to support renewable resource development as part of the state's electric  
749 industry restructuring plan. Provided analytic support to the energy office as it participated in  
750 a working group of stakeholders attempting to reach consensus on the institutional design of  
751 such a renewables fund. Drafted legislative language to create the fund and the non-  
752 bypassable charge on electric distribution service in the state. (1997)

- 753   ▪ **Massachusetts Water Resources Authority Advisory Board**  
754    Analyzed opportunities for the MWRA, a public authority with major energy-using and –  
755    producing assets, to position itself beneficially as a participant in a restructured retail  
756    electricity market in New England. (1996-1997)  
757
- 758   ▪ **Coalition of marketers and independent power producers**  
759    Analyzed a state public utility commission’s proposed rules for restructuring the electric  
760    industry, from the point of view of whether the proposed structure would assure a workably  
761    competitive market. Examined the regional power pool’s proposal for an independent system  
762    operator. (1996-1997)
- 763   ▪ **Major independent power producer**  
764    Analyzed market opportunities and risks for merchant plant development in a region of the  
765    U.S. (1996)
- 766   ▪ **Major independent power producer**  
767    Analyzed the expected market price of power in two regions of the U.S. electricity markets.  
768    Presented results to company board of directors. (1996)
- 769   ▪ **MCI, Inc.**  
770    Provided strategic regulatory advice in local competition proceeding before a state public  
771    utility commission. Provided testimony on local competition policy issues in public utility  
772    commission proceedings in Massachusetts and New York. (1996)
- 773   ▪ **Group of municipal electric companies in New York State**  
774    Provided expert witness testimony on cost allocation issues in court litigation on wholesale  
775    power contracts. (1996)
- 776   ▪ **Intercontinental Energy Corporation**  
777    Provided strategic guidance, analytic support, and regulatory support for the company, a  
778    major independent power producer, as it developed its position in the state’s electric industry  
779    restructuring proceeding. Issues involved regional industry structure (including independent  
780    system operator proposals), stranded cost recovery policy, stranded cost calculation  
781    methodologies, horizontal and vertical market power issues, environmental protection, and  
782    securitization. Provided expert witness testimony in state retail restructuring proceedings in  
783    Massachusetts and New Jersey. (1995-1997)
- 784   ▪ **Nextel Communications**  
785    Provided economic and policy analysis on barriers to entry in the local commercial mobile  
786    radio service market in region. Provided expert witness testimony before the Massachusetts  
787    Department of Public Utilities. (1995-1998)
- 788   ▪ **Arizona Public Service Company**  
789    Provided expert witness testimony on regulatory reforms necessary to align traditional  
790    existing utility planning proceedings with competitive retail markets as being proposed in the  
791    state. (1995)

792

793   **TESTIMONY ON BEHALF OF CLIENTS**

794

- 795   ▪ **Several confidential expert reports, testimonies, declarations, affidavits, and depositions**  
796    **in confidential arbitrations and mediations.**

797

798

- 799   ▪   **Commonwealth Edison Company**  
800    Before the Illinois House of Representatives, Electric Utility Oversight Committee, on the  
801    Pay-as-Bid versus Uniform Price Auction Approach To Procurement of Wholesale Power for  
802    ComEd's Full-Requirements Customers, January 18, 2006, Springfield, Illinois.  
803
- 804   ▪   **Louisville Gas & Electric Company and Kentucky Utilities Company**  
805    Before the *Kentucky Public Service Commission*, Application of LG&E and KU to transfer  
806    functional control of their transmission assets, Case No. 2005-xxxx, Direct Testimony,  
807    November 19, 2005.
- 808   ▪   **Western Massachusetts Electric Company**  
809    Before the Superior Court Department of Norfolk County, Massachusetts, *Alternative Power*  
810    *Source, Inc., v. Western Massachusetts Electric Company*, Civil Action No. 00-1967, on the  
811    allocation of costs related to transmission congestion in wholesale power contract for  
812    standard offer service. Expert Report, September 19, 2001; deposition, October 15, 2001;  
813    testimony at trial, July 15, 2005.
- 814   ▪   **Entergy Louisiana, Inc. and Entergy Gulf States Inc.**  
815    Before the *Louisiana Public Service Commission*, Application of Entergy Louisiana, Inc. for  
816    Approval of the Purchase of Electric Generating Facilities and Entergy Gulf States, Inc. for  
817    Authority to Participate in Contract for the Purchase of Capacity and Electric Power, Docket  
818    No. U27836, January 21, 2005.
- 819   ▪   **Louisville Gas & Electric Company and Kentucky Utilities Company**  
820    Before the *Kentucky Public Service Commission*, Investigation Into The Membership of  
821    Louisville Gas and Electric Company and Kentucky Utilities Company In The Midwest  
822    Independent Transmission System Operator, Inc., Case No. 2003-00266, September 29,  
823    2004; Supplemental Rebuttal Testimony, January 10, 2005; testimony at hearing, June 2005.
- 824   ▪   **Entergy Services Inc.**  
825    Before the *Federal Energy Regulatory Commission*, Entergy Services Inc., et al., in support  
826    of the application for approval of market-based power purchase agreements under Section  
827    205 of the Federal Power Act. Affidavit, February 28, 2003; Affidavit, March 31, 2003;  
828    Testimony, September 2003; Testimony at deposition, November 20, 2003; Rebuttal  
829    Testimony, May 11, 2004; Deposition, May 27, 2004, and June 10-11, 2004; Testimony  
830    under cross-examination, July 19-23, 26-27, 2004.
- 831   ▪   **Pacific Gas & Electric Company**  
832    Before the *California Public Utilities Commission*, In Re: Order Instituting Investigation into  
833    the ratemaking implications for Pacific Gas and Electric Company (PG&E) pursuant to the  
834    Commission's Alternative Plan of Reorganization under Chapter 11 of the Bankruptcy Code  
835    for PG&E, in the United States Bankruptcy Court, Northern District of California, San  
836    Francisco Division, In re Pacific Gas and Electric Company, Investigation 02-04-026, Pre-  
837    Filed Testimony, July 23, 2003, Testimony under cross-examination, September 12, 2003.
- 838   ▪   **Entergy Louisiana, Inc.**  
839    Before the *Louisiana Public Service Commission*, *Entergy Service*, In Re: Application of  
840    Entergy Louisiana, Inc., for Authorization to Enter into Certain Contracts for the Purchase of  
841    Capacity and Energy, Docket No. U-27136, Rebuttal Testimony, April 25, 2003.
- 842   ▪   **Pacific Gas and Electric Company/PG&E Corporation**  
843    Before the *Federal United States Bankruptcy Court, Northern District of California, San*  
844    *Francisco Division*, In Re: Pacific Gas and Electric Company, Debtor, Federal I.D. No. 94-

- 845 0742640, on the public policy concerns raised by the proposed reorganization plan of PG&E  
846 Corporation. Expert report, November 8, 2002; rebuttal report, November 26, 2002.
- 847 ▪ **PP&L Global**  
848 Before the *New York Public Service Commission, Article X Siting Board*, on the economic  
849 and environmental benefits of the Kings Park Energy power plant. Prefiled direct testimony  
850 (with James Potter, Stephen T. Marron, David J. Kettler, and Thomas Conoscenti), January  
851 2002; rebuttal testimony (with James Potter, Stephen T. Marron, William C. Miller, Jr., N.  
852 Dennis Eryou, and Robert W. Brown), October 23, 2002.
- 853 ▪ **Connecticut Light & Power Company**  
854 Before the *Federal United States District Court, District of Connecticut, Connecticut Light &*  
855 *Power Company v. NRG Power Marketing Inc.*, on their standard offer service wholesale  
856 sales agreement. Expert report, August 30, 2002; deposition, September 27, 2002.
- 857 ▪ **Pacific Gas and Electric Company/PG&E Corporation**  
858 Before the *Federal Energy Regulatory Commission, in the Matter of Pacific Gas and Electric*  
859 *Company, PG&E Corporation, on behalf of its Subsidiaries Electric Generation LLC,*  
860 *ETrans LLC, and GTrans LLC*, on the public benefits of the application seeking approval  
861 under Section 203 of the Federal Power Act and Section 12 of the Natural Gas Act for  
862 various actions relating to restructuring of the company to emerge from bankruptcy,  
863 November 30, 2001.
- 864 ▪ **Cross-Sound Cable Company LLC**  
865 Before the *Connecticut Siting Council*, on the public benefits of the proposed Cross Sound  
866 Cable Project's *Application for a Certificate of Environmental Compatibility and Public*  
867 *Need*, Docket No. 208. Prepared direct testimony, July 23, 2001; oral testimony under cross-  
868 examination, October 24-26, 29-30, 2001.
- 869 ▪ **Sithe New England (Sithe Edgar LLC, Sithe New Boston LLC, Sithe Framingham LLC,**  
870 **Sithe West Medway LLC, Sithe Mystic LLC)**  
871 Before the *Federal Energy Regulatory Commission, in the Matter of NSTAR Electric & Gas*  
872 *Corp., v. Sithe Edgar LLC, Sithe New Boston LLC, Sithe Framingham LLC, Sithe West*  
873 *Medway LLC, Sithe Mystic LLC, and PG&E Energy Trading*, Docket No. EL01-79-000.  
874 Affidavit comparing historical cost recovery by Boston Edison for its portfolio of fossil  
875 generation units (pre-divestiture) under rate regulation, versus Sithe's revenue recovery for  
876 these same units (post-divestiture) under market prices, June 5, 2001.
- 877 ▪ **NRG Energy Inc. and Dynegy Holdings Inc.**  
878 Before the *Public Utilities Commission of Nevada, In Re: petition of the Attorney General's*  
879 *Bureau of Consumer Protection to issue an Order staying further proceedings regarding*  
880 *divestiture of Nevada's electric generation assets and to open a docket to consider whether to*  
881 *issue a moratorium on divestiture in Nevada.* Supplemental prepared direct testimony on  
882 behalf of Valmy Power LLC, April 6, 2001; testimony under cross-examination.
- 883 Before the *Public Utilities Commission of Nevada, In Re: petition of the Attorney General's*  
884 *Bureau of Consumer Protection to issue an Order staying further proceedings regarding*  
885 *divestiture of Nevada's electric generation assets and to open a docket to consider whether to*  
886 *issue a moratorium on divestiture in Nevada,* prepared direct testimony on behalf of Reid  
887 Gardner Power LLC and Clark Power LLC, April 3, 2001; testimony under cross-  
888 examination.
- 889 ▪ **Sithe New England, LLC**  
890 Before the *Federal Energy Regulatory Commission, In the Matter of Maine Public Utilities*  
891 *Commission and The United Illuminating Company v. ISO New England, Inc.*, affidavit on

- 892 the role of price “spikes” in compensating generators for the services that they provide in the  
893 region, September 7, 2000.
- 894 ▪ **Arkansas Electric Distribution Cooperatives**  
895 Before the *Arkansas Public Service Commission, In the Matter of a Generic Proceeding to*  
896 *Establish Uniform Policies and Guidelines for a Standard Service Package*. Prepared joint  
897 reply testimony (with Janet Gail Besser), July 21, 2000; prepared joint surreply testimony  
898 (with Janet Gail Besser), August 3, 2000.
- 899 ▪ **TransÉnergie U.S.**  
900 Before the *Connecticut Siting Council*, on the public benefits of the proposed Cross Sound  
901 Cable Project. Expert report, July, 2000; prepared direct testimony, September 20, 2000; oral  
902 testimony, September 27, 2000; supplemental written testimony, December 7, 2000; oral  
903 testimony under cross-examination, December 14, 2000; oral testimony January 9-11, 2001.
- 904 ▪ **SCS Energy Corp.**  
905 Before the *New York State Public Service Commission*, on the economic and environmental  
906 impact of a new combined cycle power plant in Queens, NY, June 19, 2000.
- 907  
908 ▪ **Reading Municipal Light Department**  
909 Before the *Massachusetts Energy Facilities Siting Board, Docket No. EFSB 97-4*, on the  
910 economics and need for a new natural gas pipeline, June 19, 2000; testimony under cross-  
911 examination September 19, 2000, September 21-22, 2000, October 5, 2000, and October 17,  
912 2000.
- 913 ▪ **Fitchburg Gas and Electric Light Company**  
914 Before the *Massachusetts Department of Telecommunications and Energy, Docket D.T.E. 99-*  
915 *66*, on gas and electric company rate design policy, testimony under cross-examination,  
916 January 14, 2000.
- 917 ▪ **FirstEnergy Corp.**  
918 Before the *Public Utilities Commission of Ohio*, In the Matter of the Application of  
919 FirstEnergy Corp. on behalf of Ohio Edison Company, the Toledo Edison Company, and The  
920 Cleveland Electric Illuminating Company: for Approval of an Electric Transition Plan and  
921 for Authorization to Recover Transition Revenues (Case No. 99-1212-EL-ETP); for Approval  
922 of New Tariffs (Case No. 99-1213-EL-ATA); for Certain Accounting Authority (Case No.  
923 99-1214-EL-AAM), on recovery of transition costs and calculation of the market value of  
924 generation assets. Joint testimony (with Dr. Scott T. Jones), December 22, 1999;  
925 supplemental testimony (with Dr. Scott T. Jones), April 4, 2000; deposition, April 7, 2000.
- 926 ▪ **Sithe New England, LLC**  
927 Before the *Massachusetts Energy Facilities Siting Board, Docket EFSB 98-10*, in support of  
928 an application to construct a 540 MW gas-fired single cycle peaking power plant in Medway,  
929 Massachusetts. Prepared direct testimony, April 1999; oral testimony under cross-  
930 examination, July 27, 1999.
- 931 ▪ **Village of Bergen, et al.**  
932 Before the *Supreme Court of the State of New York, Index No. 081556*, Affidavit in Response  
933 to Defendant's Submission of February 25, 1999, in *Village of Bergen, et al., Plaintiffs, v.*  
934 *Power Authority of the State of New York, Defendant*, March 3, 1999.
- 935 Before the *Supreme Court of the State of New York, Index No. 081556*, Affidavit in Support  
936 of Petition to Correct Rates, in *Village of Bergen, et al., Plaintiffs, v. Power Authority of the*  
937 *State of New York, Defendant*, October 17, 1996.

- 938   ▪   **Sithe New England, LLC**  
939    Before the *Massachusetts Energy Facilities Siting Board, Docket EFSB 98-7*, in support of an  
940    application to construct a 750 MW gas-fired combined cycle power plant at the Fore River  
941    Station in Weymouth, Massachusetts (Edgar). Prepared direct testimony, February 10, 1999;  
942    oral testimony under cross-examination, July 26, 1999.
- 943   ▪   **Sithe New England, LLC**  
944    Before the *Massachusetts Energy Facilities Siting Board, Docket EFSB 98-8*, in support of an  
945    application to construct a 1500 MW gas-fired combined cycle power plant at the Mystic  
946    Station in Everett, Massachusetts. Prepared direct testimony, February 10, 1999; oral  
947    testimony under cross-examination, May 25, June 2, 1999.
- 948   ▪   **U.S. Generating Company**  
949    Before the *Connecticut Siting Board, Docket No. 189*, on an application to construct a new  
950    Lake Road Generating Project, September 1998. Oral testimony under cross-examination.
- 951   ▪   **Central Hudson Gas & Electric Corporation**  
952    Before the *Supreme Court of New York, Index No. 255/1998, CHGE v. West Delaware Hydro*  
953    *Associates*, on issues relating to ratemaking treatment of costs relating to power contracts,  
954    April 13, 1998.
- 955   ▪   **Sithe New England Holdings, LLC**  
956    Before the *Massachusetts Department of Telecommunications and Energy and the*  
957    *Massachusetts Energy Facilities Siting Board, Docket Nos. DTE98-84 and EFSB98-5*, on  
958    issues pertinent to forecast and supply planning by electric companies, September 14, 1998.
- 959   ▪   **Sithe Energies, Inc.**  
960    Before the *Massachusetts Energy Facilities Siting Board, Docket No. EFSB98-3*, on issues  
961    related to the agency's rulemaking establishing a Technology Performance Standard, June 8,  
962    1998.
- 963    Before the *Massachusetts Energy Facilities Siting Board, Docket No. EFSB98-1*, on issues  
964    related to the agency's review of project viability as part of its review of power plant  
965    applications, March 16, 1998.
- 966   ▪   **Pennsylvania Power & Light**  
967    Rebuttal testimony on codes of conduct governing affiliate relations. *Pennsylvania Public*  
968    *Utility Commission, Docket Nos. A-122050F0003, A-120650F0006*, testimony under cross-  
969    examination, February 17, 1998.  
970    Rebuttal testimony on rate unbundling and rate design issues, on consumer protection issues.  
971    *Pennsylvania Public Utility Commission, Docket No. R-00973954*, testimony under cross-  
972    examination, August 5, 1997.
- 973    Before the *Pennsylvania Public Utility Commission, Docket No. R-00973954*, on rate design,  
974    April 1, 1997.
- 975   ▪   **Nextel Communications**  
976    Before the *Massachusetts Department of Public Utilities, Docket 95-59-B*, on  
977    telecommunications facility matters, testimony under cross-examination, January 1997.
- 978   ▪   **Arizona Public Service Company**  
979    Before the *Arizona Corporation Commission, Docket No. U-0000-95-506*, on integrated  
980    resource planning and competition, October 1996.
- 981   ▪   **U.S. Generating Company**

982 Before the *Massachusetts Energy Facilities Siting Board, Docket 96-4*, on an application to  
983 construct a new Millennium power generating facility, testimony under cross-examination,  
984 October 1996.

985 ▪ **MCI Communications, Inc.**

986 Before the *Massachusetts Department of Public Utilities*, in the NYNEX interconnection  
987 docket. Opening up the Local Exchange Market to Competition: Common Themes with  
988 Retail Competition in Electricity and Natural Gas Industries, August 30, 1996.

989 ▪ **Intercontinental Energy Corporation**

990 Before the *New Jersey Board of Public Utilities, No. EX94120585Y*, on the Energy Master  
991 Plan Phase I Proceeding to Investigate the Future Structure of the Electric Power Industry,  
992 July 1996.

993 Before the *Massachusetts Department of Public Utilities, DPU 96-100*, on the Investigation  
994 Commencing a Notice of Inquiry/Rulemaking for Electric Industry Restructuring  
995 Proceedings, July 1996.

996 **PUBLICATIONS, REPORTS, ARTICLES**

997

998 "Let's Talk About the Weather: Interview with Susan Tierney on climate change risks that  
999 corporate boards of directors should know about and address," *Corporate Board Member*  
1000 *Magazine*, January/February 2006.

1001 "New England Energy Infrastructure – Adequacy Assessment and Policy Review," White Paper  
1002 prepared for the New England Energy Alliance; co-authored with Paul J. Hibbard November  
1003 2005.

1004 "New energy bill doesn't do enough." Op Ed, *Boston Globe*, July 29, 2005.

1005 "The Benefits of New LNG Infrastructure in Massachusetts and New England: The Northeast  
1006 Gateway Project," Prepared for Northeast Gateway Energy Bridge, L.L.C., and Algonquin Gas  
1007 Transmission, LLC, White Paper co-authored with Paul. J. Hibbard, June 2005.

1008 "Principles for Market Monitoring and Mitigation in PJM: A Review of Economic Principles,  
1009 Legal and Regulatory Structures, and Practices of Other Regions, with Recommendations," White  
1010 Paper prepared for PJM Interconnection, January 3, 2005.

1011 "Keeping the Power Flowing: Ensuring a Strong Transmission System to Support Consumer  
1012 Needs For Cost-Effectiveness, Security and Reliability – A Report of the Transmission  
1013 Infrastructure Forum of the Consumer Energy Council of America," co-authored the report with  
1014 CECA staff for this CECA Transmission Infrastructure Forum, January 2005.

1015 Signatory to "Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy  
1016 Challenges, Summary of Recommendations," Washington, DC: National Commission on Energy  
1017 Policy, December 2004.

1018 "Comments of Susan F. Tierney and Paul. J. Hibbard on their own behalf," before the *Federal*  
1019 *Energy Regulatory Commission, in the Matters of Solicitation Processes for Public Utilities*  
1020 *(Docket No. PL04-6-000) and Acquisition and Disposition of Merchant Generation Assets by*  
1021 *Public Utilities (Docket No. PL04-9-000)*, on the role of independent monitors and independent  
1022 evaluators in public utility resource solicitations, July 1, 2004.

- 1023 “Energy and Environmental Policy in the United States: Synergies and Challenges in the Electric  
1024 Industry” (with Paul J. Hibbard), prepared for Le Centre Français sur les Etats-Unis (The French  
1025 Center on the United States), July 2003; presentation in Paris, October, 2003.
- 1026 “Supplemental Report on the Benefits of New Gas Infrastructure in New England: The Everett  
1027 Extension Project” (with Charles Augustine), prepared for Algonquin Gas Transmission  
1028 Company, February 5, 2003.
- 1029 “The Political Economy of Long-Term Generation Adequacy: Why an ICAP Mechanism Is  
1030 Needed as Part of Standard Market Design” (with Janet Gail Besser and John Farr), *The  
1031 Electricity Journal*, August/September 2002.
- 1032 “Siting Power Plants in the New Electric Industry Structure: Lessons California and Best  
1033 Practices for Other States” (with Paul J. Hibbard), *The Electricity Journal*, June 2002.
- 1034 “Maritimes Phase III and Algonquin Hubline: 'Coastal Dependency' ” *CZM Consistency Review*,  
1035 May 2002.
- 1036 “Siting Power Plants: Recent Experience in California and Best Practices in Other States” (with  
1037 Paul J. Hibbard), prepared for The Hewlett Foundation and The Energy Foundation, February  
1038 2002.
- 1039 “Economic and Environmental Benefits of the Kings Park Energy Project: System Production  
1040 Modeling Report” (with Joseph Cavicchi), prepared for PPL Global, January 25, 2002.
- 1041 “The Benefits of New Gas Infrastructure in New England: The Maritimes & Northeast Phase IV  
1042 Pipeline Project” (with Charles Augustine), prepared for Maritimes & Northeast Pipeline, LLC,  
1043 January 2002.
- 1044 “Activating Ontario’s Capacity Market: Design and Implementation Issues” (with Janet Gail  
1045 Besser and John Farr), prepared for Sithe Energies, Inc., October 24, 2001.
- 1046 White paper on “Ensuring Sufficient Capacity Reserves in Today's Energy Markets” (with Janet  
1047 Gail Besser and John Farr), prepared for submission as part of comments filed by Sithe Power  
1048 Marketing LLC, Sithe New England Holdings, and FPL Energy LLC, in FERC Docket No.  
1049 EX01-1-000, October 17, 2001.
- 1050 “The Rationale and Need for Capacity Obligations and a Capacity Market in a Restructured  
1051 Ontario Electricity Industry” (with Janet Gail Besser and John Farr), prepared for Sithe Energies,  
1052 Inc., September 27, 2001.
- 1053 “Economic and Environmental Benefits of the Wawayanda Energy Center: System Production  
1054 Modeling Report” (with Joseph Cavicchi), prepared for Wawayanda Energy Center, LLC, August  
1055 24, 2001.
- 1056 “A Better CO<sub>2</sub> Rule,” op-ed, *The New York Times*, May 16, 2001.
- 1057 “Air Pollution Reductions Resulting from the Kings Park Energy Project” (with Joseph  
1058 Cavicchi), prepared for PPL Global, January 24, 2001.
- 1059 “Report on “Economic Benefits of Wireless Telecommunications,” prepared on behalf of the  
1060 New Hampshire Coalition of Wireless Carriers for the New Hampshire HB 733 Study  
1061 Committee, November 13, 2000.
- 1062 Expert Report: “Public Benefits of the Proposed Cross Sound Cable Project Prepared for  
1063 TransÉnergie U.S. Ltd.,” July 2000.

- 1064 “The Benefits of New Gas Infrastructure in Massachusetts and New England: The Maritimes &  
1065 Northeast Phase III Pipeline and the Algonquin Gas Transmission Company HubLine Projects”  
1066 (with Wayne Oliver of Navigant Consulting), prepared for Maritimes & Northeast Pipeline, LLC  
1067 and Algonquin Gas Transmission Company, October 2000.
- 1068 “Production Modeling for the Astoria Project: Report on Results” (with John G. Farr), report for  
1069 SCS Energy Corp., June 14, 2000.
- 1070 “Observations from Across the Border: Implications for Canadian Reliability of Recent Changes  
1071 in U.S. Electricity Markets and Policy,” white paper for Natural Resources Canada, 1999.
- 1072 “Research Support for the Power Industry” (with M. Granger Morgan), *Issues in Science and*  
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- 1074 “Maintaining Reliability in a Competitive U.S. Electricity Industry,” Final Report of the Task  
1075 Force on Electric System Reliability, U.S. Department of Energy, September 29, 1998.
- 1076 “Regional Issues in Restructuring the Electric Industry,” *The Electricity Industry Briefing Papers*,  
1077 The National Council on Competition and the Electric Industry, April 1998.
- 1078 “Fueling the Future: America’s Automotive Alternatives” (with Philip Sharp), The American  
1079 Assembly, Columbia University, Arden House, NY, September, 1995.
- 1080 “Needed: Broad Perspective, Fresh Ideas,” guest editorial, *The Electricity Journal*, November  
1081 1994.
- 1082 Foreword in J. Raab, *Using Consensus Building to Improve Utility Regulation*, American Council  
1083 for an Energy-Efficient Economy, Washington, DC, 1994
- 1084 “Massachusetts’ Pre-Approval Approach to Prudence in Massachusetts,” *The Electricity Journal*,  
1085 December 1990.
- 1086 “Using Existing Tools to Pry Open Transmission—A New England Proposal,” *The Electricity*  
1087 *Journal*, April 1990.
- 1088 “Sustainable Energy Strategy: Clean and Secure Energy for a Competitive Economy” (directed),  
1089 National Energy Policy Plan, July 1995.
- 1090 “The Domestic Natural Gas and Oil Initiative: First Annual Progress Report” (directed), U.S.  
1091 Department of Energy, February 1995.
- 1092 General Guidelines for Voluntary Reporting of Greenhouse Gases under Section 1605(b) of the  
1093 Energy Policy Act of 1992 (directed), U.S. Department of Energy, October 1994.
- 1094 “Fueling a Competitive Economy: Strategic Plan for the U.S. Department of Energy” (directed),  
1095 April 1994.
- 1096 “The Domestic Natural Gas and Oil Initiative: Energy Leadership in the World Economy”  
1097 (directed), U.S. Department of Energy, December 1993.
- 1098 “Siting Needs: Issues and Options,” U.S. Department of Energy, June 1993.
- 1099 “The Nuclear Waste Controversy,” in D. Nelkin, *Controversy: The Politics of Technical*  
1100 *Decisions*, Sage, 1977; 1984 (second edition).

1101 *DATAWARS: Computer Models in the Federal Government* (with Kenneth L. Kraemer, Siegfried  
1102 Dickhoven, and John Leslie King), Columbia University Press, 1987.

1103 “The Evolution of the Nuclear Debate: The Role of Public Participation,” *Annual Review of*  
1104 *Energy*, 1978.

1105 **OTHER PROFESSIONAL ACTIVITIES**

1106

1107 Member, National Academy of Sciences Committee on Enhancing the Robustness and Resilience  
1108 of Electrical Transmission and Distribution in the United States to Terrorist Attack, 2005-present

1109 Advisory Council member, New England Energy Alliance, 2005-present

1110 Director, Electric Power Research Institute, 1998 to 2003, 2005-present

1111 Chair of the Laboratory Direction’s Division Review Panel for the Environmental Energy  
1112 Technologies Division, Lawrence Berkeley National Laboratory, 2005.

1113 Member, New York Independent System Operator, Environmental Advisory Council, 2004-  
1114 present.

1115 Chair, Ocean Management Task Force to the Massachusetts Secretary of Environmental Affairs,  
1116 2003-2004.

1117 Member, National Commission on Energy Policy, 2002 to present. Final Report: *Ending the*  
1118 *Energy Stalemate – A Bipartisan Strategy to Meet America’s Energy Challenges*, December 8,  
1119 2004.

1120 Member, Board of Directors, Catalytica Energy Systems Inc., 2001 to present

1121 Co-Chair, RTO Futures: Regional Power Working Group, 2001-2002

1122 Member, Advisory Committee, Carnegie Mellon Electricity Industry Center, 2001 to present

1123 Member, Board of Directors, Climate Policy Center (formerly, Americans for Equitable Climate  
1124 Solutions (SkyTrust)), 2001 to present

1125 Chair, Board of Directors, Electricity Innovations Institute, 2002 to November 2004; Director,  
1126 2001 to 2002.

1127 Member, Florida Energy 2020 Study Commission, Environmental Technical Advisory  
1128 Committee, 2001

1129 Chair of the Board of Directors, The Energy Foundation, 2000 to present; Vice-Chair, 1999-2000;  
1130 Director, 1997 to present

1131 Chair of the Board of Directors, Clean Air–Cool Planet: A Northeast Alliance, 2004 to present;  
1132 director, 1999-2004; Chairman of the Board, 2004 to present.

1133 Member, Policy Advisory Committee, China Sustainable Energy Project–A Joint Project of The  
1134 Packard Foundation and The Energy Foundation, 1999 to present

1135 Advisory Council member, Clean Air Task Force, 2002 to present

1136 Director, NorthEast States Center for a Clean Air Future (formerly, Northeast States Clean Air  
1137 Foundation), 1998 to present

- 1138 Technical Advisor, Mid-Atlantic Area Council/PJM, Dispute Resolution Procedure, 1998 to  
1139 present
- 1140 Member, "ISO-New England" (Independent System Operator) Advisory Committee, 1998 to  
1141 2003
- 1142 Director, The Randers Group (subsidiary of Thermo TERRATEK), 1997 - 2000
- 1143 Director, MHI, Inc. (electric utility aggregator for non-profit organizations in Massachusetts),  
1144 1997 - 1999
- 1145 Director, Thermo ECOTEK Corporation, 1996 - 1999
- 1146 Member, United States Department of Energy, Electricity Reliability Task Force, 1996-1998
- 1147 Member, Harvard Electricity Policy Group, 1993 to present

1148 **HONORS AND AWARDS**

- 1149
- 1150 Distinguished Alumna Award, Scripps College, Claremont, CA, 1998
- 1151
- 1152 Award for Individual Leadership in Public Service, *The Energy Daily*, 1995
- 1153
- 1154 Special Recognition Award for Outstanding Contribution to the Industry, Cogeneration and  
1155 Competitive Power Institute, Association of Energy Engineers, 1994
- 1156
- 1157 Leadership Award, National Association of State Energy Officials, 1994
- 1158
- 1159 Commencement Speaker and Honorary Doctorate of Laws, Regis College, Weston, MA, 1992.