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# Amy Beth Roschelle

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## PROFESSIONAL EXPERIENCE

**Synapse Energy Economics, Inc.**, Cambridge, MA. Business Consultant. May 2003 - Present. Consulting on economic analysis and environmental impact of technologies and policies, resource planning and portfolio management, financial analysis, evaluation of water use and air emissions of electricity generation, and other topics including marketing/business development, project management, and technology strategy within the energy industry.

### Project Topics:

- Financial incentives directed towards specific generation technologies
- Resource planning
- IGCC plants and carbon sequestration
- Mergers and acquisitions
- Control premiums
- Capital structures
- Regulated return on equity
- Weighted average cost of capital
- Best practices in procurement of default electric service
- Portfolio management practices
- Laddering theory and practice
- Auctions and auction strategies
- Generating options
- Financial hedging
- Wind financing
- Relationship between contract durations and contract prices
- Electricity rate trends
- Advanced metering technologies
- Renewables and advanced energy efficiency technologies
- Renewable Portfolio Standards
- Renewable costs and environmental externalities
- Natural gas supply and LNG terminals
- End-user electricity options
- Underground transmission lines
- Health effects of diesel generators
- Health effects of particulate matter
- EPA Modeling assumptions with respect to the Clean Air Act.

### Papers:

- “Portfolio Management and the Use of Generation Options and Financial Instruments,” NRRI Journal of Applied Regulation, November 2004.
- “Best Practices in Procurement of Default Electric Service,” Electricity Journal, October 2004.
- “Long-term Power Contracts: The Art of the Deal,” Public Utilities Fortnightly, August 2004.

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- “Energy Efficiency: Still a Cost-Effective Resource Option,” prepared for the USAEE/IAEE Conference, Washington, DC July 2004.
  - “Strategies for Procuring Residential and Small Commercial Standard Offer Supply in Maine,” April 2004
  - “The 2003 Blackout: Solutions That Won't Cost a Fortune,” Electricity Journal, November 2003.
  - “FERC's Transmission Pricing Policy: New England Cost Impacts,” October 2003
  - “Portfolio Management: How to Procure Electricity Resources to Provide Reliable, Low-Cost, and Efficient Electricity Services to All Retail Customers,” September, 2003

**Testimony:**

- Assisted in preparation of direct and rebuttal testimony regarding ComEd’s Post-2006 Proposal to Implement a Competitive Procurement Process, Filing June 2005.
- Assisted in preparation of direct and rebuttal testimony regarding Ameren’s Post-2006 Proposal to Implement a Competitive Procurement Process, Filing June 2005.
- Testified on the behalf of the Gulf Coast Coalition of Cities regarding Centerpoint’s ROE and its relation to a competition transition charge, April 2005.
- Testified on the behalf of AARP regarding Central Vermont Public Service’s allowed return on equity, November 2004.
- Testified on the behalf of the Union of Concerned Scientists regarding California’s Long-term Resource Plans, September 2004.
- Assisted in preparation of direct testimony regarding Texas Centerpoint Stranded Cost True-up Filing, May 2004.
- Assisted in preparation of direct testimony regarding Ohio Market Based Standard Service Offer, April 2004.
- Assisted in preparation of comments on the California Natural Gas Utilities’ Phase 1 Proposals regarding natural gas supply, March 2004.
- Assisted in preparation of direct testimony regarding return on equity in regard to Central Vermont Public Service Memorandum of Understanding, November 2003.

**Meetings/Conferences:**

- Panelist on Renewable Technologies, Costs, and Environmental Externalities: Economic Impact Analysis of NJ’s Proposed 20% Renewable Portfolio Standard, Rutgers University’s Center for Energy, Economic & Environmental Policy, February 2005.
- NEPOOL Reliability Committee Meetings, monthly 2003 - 2004.
- USAEE: Energy (In)Security in the US, December 2003
- Edison Energy Institute: Emerging Issues in New England, November 2003.
- New York State Energy Research and Development Authority: PM2.5 Conference, October 2003.
- Renewable Modeling Conference, April 2004.
- Restructuring Roundtable.

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**Clients:** Union of Concerned Scientists, AARP, Massachusetts Audubon Society, Arkansas Public Service Commission, Natural Resource Defense Counsel, CHOKE, Illinois Citizens Utility Board, US Public Interest Research Group, Gulf Coast Coalition of Cities, Ohio Office of Consumer Counsel, Ratepayers for Affordable Clean Energy, US Environmental Protection Agency, Industrial Economics, Reliant Energy, Pennsylvania Office of Consumer Advocate, enXco, Town of Rockingham, New Jersey's Division of Ratepayer Advocate, Massachusetts Office of Attorney General, Connecticut Office of Consumer Counsel, Maine Office of the Public Advocate, New Hampshire Office of Consumer Advocate, Regulatory Assistance Project, Connecticut Towns, Nova Scotia Utility Review Board, PJM Independent System Operator, Tellus Institute, Delaware Public Service Commission, Low Income Energy Affordability Network of Massachusetts, Utah Committee of Consumer Services, Southern California Edison.

**Center for Integration of Medicine and Innovative Technologies**, Cambridge, MA. Project Specialist. February – May 2003. Experience with technology strategy, grant writing, and product development. Led effort to raise \$2.5M to fund the tissue engineering initiative at MIT, Draper, and MGH. Evaluated proposals for new medical technologies in terms of potential for long-term patient impact. Coordinated technology implementation plans and progress of currently funded research initiatives.

**Greenfuel Corporation**, Cambridge, MA. Director of Operations. Summer 2002. Experience raising capital and preparing/implementing business plans. Developed and implemented strategies for venture capital funding and market share growth. Led \$3 million project proposal initiative to fund initial product development. Negotiated all legal and employee issues including incorporation and stock plan incentives. Managed investor/board relationships and coordinated corporate decision-making process.

**National Park Service**, Washington, DC. Business Plan Initiative Consultant. Summer 2001. Financial analysis, marketing, operations experience. Produced a 40-page business plan detailing funding needs and shortfalls for the most visited park in the National Park Service. Prepared park-wide operational standards to be used as performance management tools. Analyzed \$25 million budget and recommended strategies for efficient resource allocation and alternative funding-source identification. Developed and re-branded park literature for distribution to congressional representatives, outside agencies, the National Park Foundation, and the 20 million annual visitors to the National Mall.

**The Gillette Company**, Boston, MA

Process Engineer. 1997-2000

Project management and consumer product experience. Managed overall operations of the corporate measurement laboratory to ensure worldwide product standardization. Streamlined product flow by implementing information management system to automatically prioritize, monitor, and analyze test results. Reduced overtime substantially by creating metrics to understand personnel efficiency and machine utilization. Led multidisciplinary Safety, Health, and Environment Team to international standards (ISO) approval.

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Product Engineer. Cross-functional team and new product experience. Organized product for distribution to critical marketing consumer-use tests. Insured that product specifications conformed to overall product definition. Partnered with operations team to schedule prototype builds and analyses. Linked Mach3 blade and cartridge engineering teams by attaining hands-on technical expertise in each area.

**Siemens AG, KWU**, Erlangen, Germany. Researcher, MIT Coop Program. Summer 1992. Nuclear Power Generation Division. Worked in multidisciplinary team to design, test and enhance performance of novel high temperature superconducting materials.

**Mobil Solar Energy Corporation**, Billerica, MA. Researcher, MIT Coop Program. Summer 1991. Evaluated the process of manufacturing solar cells in an effort to boost process yields. Performed edge strain/strength tests on laser cut cells to determine fracture pattern and process handling sensitivities.

## **EDUCATION**

**MIT Sloan School of Management**, MBA, Management Sciences, Cambridge, MA, 2002.

**University of California, Los Angeles**, MS, Materials Science and Engineering, Los Angeles, CA, 1995

**Massachusetts Institute of Technology**, BS, Materials Science and Engineering, Cambridge, MA, 1993

Resume dated October 2005.