

Bright Power Corporate Resume

Bright Power Inc. (www.brightpower.com) provides a variety of renewable energy and energy efficiency services, including energy benchmarking, technical feasibility assessment, energy auditing and modeling, project development, engineering design, financial modeling, market analysis, construction management and measurement & verification. Based in New York, the company has worked on projects across the nation and around the world. One of Bright Power's key strengths is the ability to assess the technical feasibility of a wide range of renewable energy technologies and efficiency measures, model their performance, and combine this information with knowledge of financing and available incentive programs to deliver a maximally beneficial package for the customer.

EnergyScoreCards Inc. (www.energyscorecards.com) is a subsidiary of Bright Power that provides software solutions to portfolios of buildings for energy management, benchmarking and measurement & verification of energy savings programs.

Energy Efficiency: Benchmarking, Auditing & Retrofitting

Stewards of Affordable Housing for the Future (SAHF) Energy Project

Technical consulting services for nine major national affordable housing owners, including: National Church Residences (NCR), Volunteers of America (VoA), Retirement Housing Foundation (RHF), Mercy Housing, Preservation of Affordable Housing for the Future (POAH), National Affordable Housing Trust (NAHT), NHT/Enterprise Preservation Corporation, NHP Foundation, and Good Samaritan Society. (2006 – Present)

- Analyzing energy consumption, using EnergyScoreCards, across over 700 multifamily properties (over 50,000 units) to assess energy savings potential.
- Energy auditing 12 multifamily properties (925 units) in CT, NJ, NH, MA, OR.
- Advising building owners, managers and HUD on strategies and policies to enhance energy efficiency and solar energy usage.
- Evaluating and recommending energy savings strategies and solar and wind energy systems tailored to budgets and energy needs at various properties.

Pennsylvania Housing Finance Agency (PHFA)

Energy benchmarking and energy auditing under this state agency's Preservation through Smart Rehab Multifamily Weatherization Assistance Program. (2010 – Present)

- Energy benchmarking and measurement and verification, through EnergyScoreCards, to PHFA and affiliated regional coalitions.
- Energy auditing multifamily properties as a PHFA-approved auditor.

Community Weatherization Partners (CWP) - New York State Weatherization

Energy auditing, preparing bid specifications, and overseeing installation for affordable multifamily properties in New York City as a Technical Service Provider to Community Weatherization Partners (CWP). CWP is a partnership between Enterprise Community Partners and LISC and a temporary sub-grantee in the New York State Weatherization Assistance Program (WAP). (2010 – Present)

- Energy auditing over 24 buildings (781+ units).
- Boiler specifications for over 8 buildings.

Enterprise Community Partners

Energy auditing and benchmarking services for this national community development and affordable housing non-profit. (2009 – Present)

- Energy auditing 48 multifamily properties (5,221 units) owned by members of LeadingAge (formerly American Association of Homes and Services for the Aging - AAHSA) and SAHF in NY, MD, FL, IN.
- Analyzing and benchmarking energy consumption of 54 New York City multifamily buildings to support a Green Retrofit Loan fund pilot.
- Energy and green consulting for several projects participating in the Green Communities program.

U.S. Department of Housing and Urban Development Green Retrofit Program

Energy auditing, utility consumption analysis and engineering specifications for multifamily affordable housing properties participating in this program run by HUD's Office of Affordable Housing Preservation (OAHP). (2009 – Present)

- Energy auditing 26 multifamily properties (1,997 units) under subcontract to KOW Building Consultants for CreditVest, a Participating Administrative Entity (PAE) to HUD, in NY, OH, MA, MI, WV, AL, PA.
- Utility Consumption Baseline Analysis of over 40 multifamily properties.
- Design, specifications and engineering for several multifamily properties in NYC.

National Grid Gas Efficiency Program

Assessing energy usage and providing "Energy Action Plan" reports to over 375 National Grid (formerly Keyspan) natural gas customers in New York City and Long Island. These reports detail improvements that customers can make to their buildings to save energy, and financial incentives available from National Grid to encourage the implementation of these improvements. (2007 – Present)

- Recommending and calculating savings from efficiency improvements for the following building types:
 - Multifamily apartment buildings
 - Office buildings
 - Restaurants, stores and other small commercial properties
 - Industrial facilities
- Inspecting completed installation jobs to ensure that specifications and quality standards are met.

Association for Energy Affordability

Energy engineering for this NYC-based non-profit organization focused on energy efficiency in affordable housing. (2006 – Present)

- Energy auditing and scope of work development for over 45 multifamily properties (2,511 units) under the Weatherization Assistance Program (WAP) and New York State Energy Research and Development Authority (NYSERDA) Multifamily Performance Program.
- Energy efficiency software program design.
- Boiler and renewable energy system specification.

Rialto Management Corp.

Energy auditing, troubleshooting, spec writing and construction management of energy retrofits for ten multifamily buildings managed by this company (2008 – Present).

- Boiler replacement project shows savings of over 30%.
- Heating controls system upgrade shows savings of over 10%.
- Reduction in tenant heating complaints.

Community Preservation Capital (CPC) Green Initiative

Energy auditing, spec writing and construction management of energy retrofits for buildings receiving refinancing under this billion-dollar initiative (2009 – Present).

- Energy auditing of 15 properties (340+ units) in NY.
- Construction management of boiler replacements.

Industrial + Technology Assistance Corporation (ITAC) and New York Industrial Retention Network (NYIRN) Clients

Auditing industrial and manufacturing facilities in NYC to determine potential energy efficiency improvements and installing energy efficiency measures including: lighting and controls, heating system upgrades, insulation, refrigeration efficiency upgrades (2006 – 2010).

- Clients included: bakeries, meat processing and packing plants, metal and woodworking shops, printing and graphics facilities and warehouses.

New Jersey Housing & Mortgage Finance Agency (NJHMFA) Multifamily Weatherization Assistance Program (WAP)

Energy auditing, developing weatherization plans, and construction managing energy retrofit installations for five multifamily properties (500+ units) in New Jersey.

Weatherization plans demonstrate at least 15% reduction in energy consumption, with spending of \$5000/unit. (2010 – Present)

Boston Community Capital Energy Advantage Program

Analyzing and benchmarking the utility bills for a portfolio of 28 multifamily affordable housing properties to assess energy usage in the properties and identify the most promising opportunities for energy efficiency and renewable energy measures. (2007)

Renewable Energy System Feasibility, Modeling, Design and Installation

Emirates Trading Agency – Solar Projects in United Arab Emirates (UAE)

Consulting, development, design and engineering of large solar power systems in Abu Dhabi and Dubai. (2007 – Present)

- 100 MW concentrating solar thermal power plant.
- Megawatt curtain wall and other building integrated photovoltaic systems.
- Solar cooling system design for a small city.

Jonathan Rose Companies

Design and installation of solar photovoltaic (PV) systems at several green projects for this well-regarded affordable housing developer. (2008 – Present)

- 66.7 kW building-integrated PV system – Bronx, NY. (to be installed in 2011)
- 27.6 kW PV system spanning the roofs of five adjoining buildings – West 135th Street Houses, New York, NY.
- 22 kW roof-mounted PV system – Dinkins Gardens, New York, NY.

Weston Solutions

Financial analysis, feasibility, design and engineering services for solar energy systems. (2009 – Present)

- 185 kW solar photovoltaic (PV) installation for power purchase agreement between Weston Solutions and City of Newark, NJ.
- 200 kW solar PV system design for Albuquerque, NM.

Bronx Pro Real Estate Management

Design, engineering and installation oversight for various solar water heating systems on multifamily buildings in the Bronx, NY. (2008 – Present)

- 24-collector solar water heating system at 1085 Washington Ave, Bronx, NY.
- Four solar water heating systems, totaling 92 collectors, on UAC New Law Tenements buildings in the Bronx, NY.
- 21-collector building-integrated solar water heating system in the Bronx, NY.

Preservation of Affordable Housing

Designing, engineering and analysis to assess the feasibility of renewable energy and energy efficiency options for several large multifamily buildings. (2007 – 2009)

- 600 kW wind turbine – Fairweather Apartments, Salem, MA
- 40 kW solar photovoltaic system – Bridle Path Apartments, Randolph, MA

Greenlight Sunstream Canada

Designing, engineering and analyzing different system configurations for 10 MW photovoltaic power plants in Ontario, Canada, including assessments of solar modules (thin-film vs. crystalline) and module mounts (fixed axis vs. tracking). (2007)

Residential Solar Hot Water Systems

Designing, procuring and managing the installation of solar water heating systems at several residential locations. (2006)

Marjam Supply Company

Energy audit, design, engineering and management of the installation of energy projects at main warehouse in Brooklyn, NY. (2005 – 2007)

- 20 kW photovoltaic system installation
- 100 kW natural gas peak demand response generator
- Fluorescent lighting retrofit

New Construction and Green Buildings Consulting**New Housing New York – Via Verde**

Designing and modeling solar power and energy efficient systems for this prestigious New York multifamily building project, as consultants to the AEA. (2007 – Present)

- 66 kW building-integrated photovoltaic system design.
- LEED v2.2 energy modeling and green buildings certification consulting.

Greenhope Services for Women

Modeling energy efficient systems for this temporary living facility for low-income women. Efficiency measures include water source heat pump, condensing boiler, efficient lighting, and increased envelope insulation. (2008 – Present)

Ciampa Organization: Crescent Street

Designing and modeling solar and energy efficient systems for three market-rate multifamily buildings, as consultants to AEA. (2009 – Present)

- LEED v3 green buildings certification consulting.
- Energy modeling of building performance.

Hudson Companies: Dumont Green

Enterprise Green Communities consulting, solar energy consulting, energy modeling, and guidance through the NYSERDA Multifamily Performance Program. Bright Power designed and specified the 80 kW rooftop solar PV system, which is the largest on a residential building in New York City. (2008 – Present)

LEED Consulting for Art Omi's Charles B. Benenson Visitor's Center & Gallery

Energy modeling, system design and documentation, working with the architect and building engineer to design systems to meet the rigorous Leadership in Energy and Environmental Design (LEED) green building certification for a visitor's center/art gallery in Ghent, NY. Awarded LEED v2.2 Silver Certification. (2006 – 2009)

Green Consulting for Affordable Housing under DHCR Green Building Criteria

Working with affordable housing developers to incorporate green design into their responses to state qualified allocation plans (QAPs) and prepare Green Development Plans for submission to the New York State Department of Housing and Community Renewal (DHCR) for funding. DHCR's green building criteria are modeled on Enterprise Green Communities Criteria. (2008 – 2009)

Consulting Projects & Research Reports

Solar Real-Time Pricing: A Study for the New York City Economic Development Corporation

A detailed evaluation the hypothesis that “the coincidence of high electric energy prices and peak solar electric photovoltaic (PV) output can improve the economics of PV installations, and can also facilitate the wider use of hourly pricing.” This study includes hourly energy consumption and solar generation analysis as well as 3-D graphical modeling of hourly energy consumption, generation and prices. Funded by the NYC Solar America Cities Initiative. (2009)

New York State Solar Domestic Hot Water Technologies Assessment

A study comparing the energy and economic costs and benefits of a domestic conventional hot water heater to a domestic solar hot water heater for all regions of New York State using hour-by-hour simulation. Funded by NYSERDA. (2008)

Good Energies

Due diligence evaluations of solar PV and solar thermal technologies for potential investment, including technical evaluations and market assessments. (2007 - Present)

Greening A Block in Manhattan's Community Board 3

Our plan to take an entire New York City block and turn it into a model of energy efficiency and community pride on the Lower East Side of Manhattan. For more information see: www.greeningablock.org (2005-2007)

New York City Solar Market Assessment for the City University of New York (CUNY) Solar Installation Training Program

A comprehensive market assessment of the solar industry in New York City, to support the development of a technical training program for solar energy installers at the City University of New York (CUNY). Funded by NYSERDA. (2005 – 2006)

Solar Market Assessment for Fortune 500 Roofing Products Manufacturer

Assessing the market for building-integrated solar photovoltaic technology and advising on strategy to enter the solar energy marketplace. (2005 – 2006)

The Benefits of ENERGY STAR Labeled Office Buildings

A report for the US Environmental Protection Agency assessing the benefits of the ENERGY STAR label, which indicates performance among the top 25% most efficient buildings. In conjunction with Capital E and ERG. (2005 – 2006)

The Benefits of Green, High-Performance Schools

A report that shows the benefits of environmentally friendly schools. These schools, built to LEED, CHPS, and other green buildings standards, save money in operations costs, and also provide better, healthier learning environments for students and teachers. Report written in conjunction with Capital E. (2005)

All reports available at www.brightpower.com/projects/reports

Staff

Jeffrey Perlman, CEM, LEED AP, BPI_{MFBA} is the President and Founder of Bright Power Inc. and President of EnergyScoreCards, Inc. He has led Bright Power in providing energy benchmarking and performance evaluation, energy auditing, solar energy system design and installation, and LEED consulting, for multifamily, commercial and industrial buildings. Prior to founding Bright Power, Jeff's consulting projects included co-authoring, with Greg Kats at Capital E, the ground-breaking report, *The Costs and Financial Benefits of Green Buildings*, which used economic cost/benefit analysis to show that building healthy, energy-efficient and environmentally responsible buildings makes economic sense, too. Jeff presents nationally on various energy topics, teaches energy efficient building design courses at New York University (NYU) and the City University of New York (CUNY) and is on the board of New Alternatives Fund, a mutual fund that invests in clean energy. He is a LEED-accredited green buildings professional, Certified Energy Manager (CEM), Certified Energy Auditor (CEA) and BPI Multifamily Building Analyst (BPI_{MFBA}). He has a degree in Applied Physics from Yale University.

Andrew McNamara, CEM, LEED AP is VP of Renewable Energy and New Construction. Andy leads Bright Power's renewable energy division, working with clients to design appropriate solar photovoltaic and solar water heating systems, and managing their installation. He also works with new construction projects to incorporate green strategies and model their energy performance, and has performed energy audits and designed energy solutions packages for a number of commercial and industrial facilities in NYC. Prior to joining Bright Power, he was Community Energy's liaison to the Rochester Gas & Electric utility. He also performed solar site assessments with Zapotec Energy and constructed photovoltaic solar panel modeling tools with BASIC (www.basicsolar.org). Andy has a dual degree with a BA in Physics and a BS in Optical Engineering from the University of Rochester.

Gregory Sherman, LEED AP, BPI_{MFBA} is VP of Existing Buildings. Greg's extensive field experience conducting energy audits has shaped his knowledge of building science and energy efficiency. His focus on existing buildings includes multifamily residences, commercial offices and industrial warehouses. Greg has helped property managers and building owners reduce their annual energy consumption with simple and cost-effective energy management strategies. Other areas of expertise include lighting design, building control systems, and construction management. Prior to working at Bright Power, Greg worked as a commercial building appraiser and construction foreman. He received his undergraduate degree from the University of Rochester.

Other Staff Includes:

- **Conor Laver, PhD**, Chief Scientist
- **Sproule Love, MBA**, Director of Business Development
- **Jonathan Braman, LEED AP, BPI_{MFBA}**, Manager of Multifamily Buildings
- **Amalia Cuadra, MSChE, CEM, BPI_{MFBA}**, Manager of Multifamily Buildings

- **Skye Gruen, MSME**, Senior Energy Engineer
- **Emily Reiss, BPI_{MFBAA}**, Project Manager
- **Dan Fink, LEED AP BD+C**, Energy Engineer
- **Henry Misas**, Energy Engineer
- **Sam Weisenberg**, Energy Auditor
- **Greg Schneiderman**, Energy Auditor
- **Alex DeLucena**, Energy Auditor
- **Phil Vos**, Business Development and Outreach
- **Sophie Nimmannit**, Senior Researcher and Manager of National Grid
- **Rachel Lawrence**, Office Manager & Bookkeeper

Memberships

American Solar Energy Society (ASES)
 Association of Energy Engineers (AEE)
 EfficiencyFirst
 Neighborhood Energy Network (NEN)
 New York Solar Energy Industries Association (NYSEIA)
 Northeast Sustainable Energy Association (NESEA)
 Solar Energy Industries Association (SEIA)
 US Green Building Council (USGBC)

Network of Consultants

Providing their expertise on an as-needed basis

Lindsay Audin is president of Energywiz, Inc., an energy consulting firm serving large energy users, government agencies, energy suppliers, and other consultants, both in the U.S. and abroad. His clients include many well-known companies, institutions, and consulting firms, as well as EPA's Energy Star program. His 30+ years in the energy services industry include 8 years as energy manager for Columbia University and 12 years with private engineering and energy consulting firms in New York City, prior to founding Energywiz in 1996. Since 1991, Audin has authored columns on energy issues in such magazines as *Architectural Record* and *Engineered Systems*, and has been a contributing editor to *Building Operating Management* magazine since 2002. The Association of Energy Engineers (AEE) has named Audin its International Energy Manager of the Year, inducted him into its Energy Manager's Hall of Fame, and (in 2007) named him one of its Chartered Legends In Energy. In the late '70s, he chaired the Energy Task Force, an early alternative energy organization that installed the first solar collectors and wind turbines in New York City. His live seminars on other energy techniques have been given through the American Management Association, EPA, Energy Seminars Inc., E-Source, BOMA, various utilities, and government agencies. Audin holds certifications in energy management (CEM) and energy procurement (CEP), and is a LEED Accredited Professional (LEED AP).

Charles Komanoff, an Energy Economist, combines expertise in policy analysis, a flair for expressing numerical and economic data in concrete terms, and a passion for progressive social change. Komanoff's career in policy analysis has primarily

addressed two leading sources of environmental and social harm in industrial societies: electricity generation and motor vehicles. Throughout the 1970s and '80s Komanoff was the leading U.S. source of credible information on nuclear reactor costs. During this period, Komanoff consulted for two Congressional agencies, the U.S. Department of Energy, and close to two dozen states including New York, California, Texas and Florida; presented expert testimony before the U.S. Nuclear Regulatory Commission and 20 Public Utility Commissions; and testified before four Committees of Congress and the Select Committee on Energy of the House of Commons (U.K.). Komanoff is director of the consulting firm Komanoff Energy Associates, a founding trustee of the Tri-State Transportation Campaign, director of the Bridge Tolls Advocacy Project, and coordinator of the pedestrian-rights organization Right Of Way. He graduated with honors from Harvard College with a B.A. in Applied Mathematics. More information about his work is available at www.komanoff.net.

Richard Perez, PhD, Atmospheric Science, Professor at the University of Albany Atmospheric Sciences and Research Center. Dr. Perez is the leading expert in solar radiation data analysis and modeling for solar energy systems. He has published over 120 articles and reports in the fields of solar radiation, renewable energy applications and daylighting.