

Sustainability Background

Scott Muldavin, CRE, FRICS

Research/Collaboration

Delos: Senior Advisor to the company that created the WELL Building Standard™ and the International WELL Building Institute.

Green Building Finance Consortium: Founder and Executive Director of group developing and distributing sustainable property underwriting, valuation, and risk assessment methods and practices globally. Completed three years of original research in the development of his book: “Value Beyond Cost Savings: How to Underwrite Sustainable Properties”

Rocky Mountain Institute: Senior Fellow and Advisor to RMI for three years on sustainable property valuation, finance and investment decision-making including leading the Deep Retrofit Value Initiative.

Urban Land Institute, Healthy Places Initiative: Worked closely with ULI leadership on a wide range of sustainability issues including most recently the ULI Healthy Places Initiative.

WELL Mindshift: Part of multi-year collaboration with business and academia to create a path to transformation of health and wellbeing in the built environment.

Building Owners and Managers Association: Member of 2015 Building Energy Performance Contract Advisory Board and regular collaborator with BOMA on sustainable valuation, finance, education and related issues.

CoreNet Global: Collaborated on issues of sustainable value and financial performance and co-author of joint RMI-CoreNet 2015 publications on Next Generation Energy Management.

MSCI Real Estate ESG Thought Leader Council: Advise MSCI on emerging issues and trends critical to MSCI's independent ESG ratings on all public companies worldwide.

US Department of State, Bureau of Overseas Building Operations Industry Advisory Panel: Advised DOS on latest building industry concepts, best practices, and innovations in property development, acquisitions, management and operations.

National Institute of Building Sciences, Council on Finance, Insurance and Real Estate: Member of Council promoting research, interaction and sharing between building sciences and technology and real estate/finance sectors.

Royal Institute of Chartered Surveyors, European and American Sustainability Advisory Committees: Collaborate with RICS on energy policy, valuation, and education of its members on key issues regarding sustainable property valuation, finance, and decision-making practices.

World Business Council for Sustainable Development: Advised and collaborated on scaling of energy efficiency and sustainability worldwide.

EnergiVie Strasbourg: Member of International Advisory Group dedicated to scaling sustainability investment worldwide and preparing for business input to COP21.

MacArthur Foundation/Center for American Progress Multi-Family Sustainable Finance Initiative: Served on Core Advisory Panel working to identify key financing options and strategies to scale energy efficiency investment in the multi-family (affordable focus).

US General Services Administration: Advised the US General Services Administration and National Research Council on refining the business case and value proposition for more substantive US investments in sustainability.

North American Commission for Environmental Cooperation: US delegate of international advisory board created to develop and guide sustainability property research.

Zero Energy Commercial Building Consortium: Advised the Finance and Valuation working group of a consortium of organizations focused on policy recommendations for Congress and the US Department of Energy.

ASTM Energy Task Force: Advised in the development of new ASTM standard: ASTM E-2797-11 Building Energy Performance Assessment for a Building Involved in a Real Estate Transaction.

Washington DC PACE Advisory Board: Advised group developing and executing Washing DC's \$250 million Property Assessed Clean Energy program

California Energy Commission: Member of the Home Energy Rating System (HERS) Program Booklet Advisory Committee.

US Green Building Council: Assisted USGBC to establish their Research Agenda for the Future to guide sustainable building research.

Sustainability Education Activities

Professional Group Presentations: Speaker at scores of industry forums and conferences in the U.S., Canada, China, Japan, Mexico, Europe, Australia, South America, and India for organizations and events including BOMA International, Urban Land Institute, Mortgage Bankers Association, Pension Real Estate Association, RICS, Appraisal Institute, Federal Reserve Bank, and many others.

University Presentations: Frequent speaker at universities including Stanford, University of California, Berkeley, University of Pennsylvania, Massachusetts Institute of Technology, University of Colorado, Tulane, New York University, and Torcuato Di Tella University (Argentina).

Institute of Real Estate Management: Expert advisor on development of curriculum on value-based sustainability investment decision-making practices.

National Association of Realtors: Member of Advisory Group that assisted in the development of curriculum to train commercial brokers on sustainability.

Northwest Energy Efficiency Alliance Value: Assisted in the development of teaching curriculum based on the Consortium's book: "Value Beyond Cost Savings: How to Underwrite Sustainable Properties."

Appraisal Institute: Sustainable valuation curriculum development and teaching led by GBFC implementation team members.

Royal Institute of Chartered Surveyors: Collaboration with RICS in the education of its members world-wide on issues regarding sustainable property valuation and decision-making practices through books, articles, conferences, blogs, webinars', print and radio interviews.

North American Youth Leadership Project for a Sustainable Future: Advisor to group promoting sustainable leadership opportunities for high school youth in Mexico, US and Canada.

China-US Center for Sustainable Development: Presented educational session on sustainable development to the Sustainable Land Use and Governance Training Collaboration 10-Year Anniversary Workshop, Ministry of Land and Resources in Beijing and addressed related issues with Ministry officials in other regions of China.

Editorial Board, Journal of Sustainable Real Estate: Editorial Board of one of the first peer-reviewed journals emphasizing sustainable property performance and valuation.

Thesis/Research Advisor: Served on dissertation committee and expert panels for Ph.D. students and advised masters and bachelor's degree candidate students in sustainable finance and valuation research globally.

Sustainability Publications

“Capturing the Full Value, IPE Real Estate, November/December 2015.

“How to Calculate and Present Deep Retrofit Value for Investors”, Rocky Mountain Institute, April 2015.

“Financing Small Commercial Building Energy Performance Upgrades, Challenge & Opportunity”, Council on Finance, Insurance, and Real Estate, National Institute of Building Sciences, Contributing author, January 2015.

“Emerging Role of Water in Real Estate Investment”, Counselors of Real Estate External Affairs Alert, January 2015.

“Next Generation Energy Management, A Roadmap to the Next Level of Performance” CoreNet Global and RMI, April 2014.

“How to Calculate and Present Deep Retrofit Value for Owner Occupants”, Rocky Mountain Institute, January 2014.

“The Missing Link: Transforming Deep Retrofit Financial Assets Into Financial Assets”, Corporate Real Estate Journal, Spring 2014.

“The New Calculus: Technology + Energy + Real Estate”, Urban Land institute, June 2013.

“Becoming a Green Professional, Section in Book, Wiley, Fall 2011”

“Special Considerations in Sustainable Property Financial Analysis, Chapter 7, Real Estate Mathematics, PEI, Summer 2011.

“Special Considerations in Sustainable Property Financial Analysis”, Chapter 15, Sustainable Investment in Real Estate, PEI, Fall 2011.

“All Aboard”, Institutional Real Estate letter, Market Perspective, November 2011

“Learning Curve”, IP Real Estate, November/December 2010

“Value Beyond Cost Savings: How to Underwrite Sustainable Properties”, 330-page book, Green Building Finance Consortium, January 2010.

“Value Beyond Cost Savings: How to Underwrite Sustainable Properties”, Expanded Chapters, 650 pages, Green Building Finance Consortium, January 2010.

“Ten Principles of Sustainable Property Valuation and Underwriting”, *Property World*, Royal Institute of Chartered Surveyors, Fall 2009.

“Consortium Building Sustainable Building Decision-Making Infrastructure”, Investments and Pensions Europe, April 2008.

“Financial Assessment of Sustainable Properties”, European Real Estate Yearbook, January 2008.

“Putting Green in Your Pocket”, Expectations & Market Realities in Real Estate: 2008, November 2007

“Strategic Response to Sustainable Property Investing”, *Pension Real Estate Quarterly*, Summer 2007.

“Financing Green Development”, Co-authored with Andy Fusscas, Urban Land Green Magazine, Spring 2007.

“Tapping into the Green Agenda”, Guest Column, Investments & Pensions Europe, January/February 2007.