



Urban Regeneration Energy Technology Ventures Corporation

“We Build Great Companies for Green Cities”

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Context- Social Trends

► GLOBAL URBANIZATION

- In the past 100 years the world population has grown from 220 million to 3.3 billion starting with only 10% of the world's population living in cities. In 2010, 50% of the world's population resides in urban areas and it will grow quickly to 80% city dwellers by 2050.

Source: 2007 United Nations Population Fund

- Urban populations are projected to reach 80% of world's 9 billion inhabitants by 2050.

Source: David Rothkopf , *The Coming Battle of the Ages*,, The Washington Post, (Feb. 1, 2004)

- **Urbanization fosters ecological efficiencies** and is critical to delivering a more ecologically sustainable and resource-efficient world because the per-person environmental impact of city dwellers is generally lower than people in the countryside and can be reduced still further. Cities can and **must** be engines of wealth and innovation and sustainability.
 - **Source: J.M. Grove, *Cities: Managing Densely Settled Social-Ecological Systems***
- “The battle for environmental sustainability will be won or lost in cities- they account for 80% of greenhouse gas emissions and about 75% or global energy consumption.”
 - **Source: Dr. Werner Kruckow, Chief Executive, Siemens**



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THE SUSTAINABLE CITY IS THE SOLUTION

Context- Social Trends

▶ GLOBAL COMMITMENT TO SUSTAINABILITY

- The United Nation's Green City Declaration of 100 Mayors (www.urbanaccords.org) specify 7 environmental categories to enable sustainable urban living and improve the quality of life for urban dwellers:
 - Energy
 - Waste Reduction
 - Urban Design
 - Urban Nature
 - Transportation
 - Environmental Health
 - Water

Mission - URGENT VC-The Sustainable City Solution

We respond to these global trends on a local basis by providing support for Municipalities, Agencies and CleanTech Ventures committed to achieving Sustainable City Solutions and willing to be measured by a real triple bottom line:

- ▶ a strong return for investors and stakeholders
 - harvest opportunity via Strategic Sale of successful ventures or Venture IPO
- ▶ sustainable green job creation
- ▶ carbon footprint reduction and
- ▶ energy conservation alongside renewable energy generation

Vision

By 2020, we will have capitalized, built and harvested a portfolio of CleanTech ventures that will have created strong returns, green jobs and more sustainable cities.

- ▶ **Why? “The battle for environmental sustainability will be won or lost in cities- they account for 80% of greenhouse gas emissions and about 75% of global energy consumption.” Dr. Werner Kruckow, Chief Executive, Siemens**
- ▶ **Why? The CleanTech is the single sector where (i) urgent need (ii) potential for exponential growth and (iii) “political will” are converging.**

What is a Sustainable City? A Sustainable City offers a prosperous and healthy environment by aligning its inputs and waste outputs.

▶ **INPUTS**

- Energy
- Food
- Water
- Housing
- Commercialized/Residential Areas
- Transportation

▶ **WASTE OUTPUTS**

- Excess Heat
- Atmospheric Pollution via:
 - *Sulfur Dioxide*
 - *Nitrogen Oxide*
 - *Carbon Dioxide*
 - *Methane*
- Water Pollution
- Unrecycled Waste/Landfill



Strategy & Tactics

- ▶ Our strategic objective is to create Sustainable Cities.
- ▶ Our strategy is to align, leverage, and collaboratively act on the urgent issues facing municipalities and cities:
 - Implementation of the U.N. Green City Accords, EU and/or U.S. Governmental and Corporate Energy and Environmental Sustainability and Carbon Footprint Reduction Policies
 - Deployment of a range of “URGENT VC suite of CleanTech solutions” relating to Innovation in Energy Generation & Conservation and Sustainability
- ▶ Our key stakeholders/customers include:
 - Municipalities and Organizations seeking to align their efforts around a General Sustainability Approach and Strategy that is implementable and implemented.
 - Pre-revenue, prototype proven, CleanTech Ventures that are University linked and at the proven concept/go to market stage
 - Bold and Visionary Investors and Finance Partners
- ▶ Working together, we build Great Companies for Green Cities thru a 4 point tactical effort-
 - Point #1- Sustainability Policy Advisory Services
 - Point #2- Green Venture Development/Project Finance Services
 - Point #3- Green City Fund #1
 - Point #4- Green Energy-Carbon Credit Trading Services.



Investment Rationale

- ▶ CleanTech Sector is one of the few long term growth areas in our economy
 - **8,000 qualified investors**
 - **9,500 companies**
 - In '07, **\$6 billion** in venture capital invested in North America, Europe, India and China
 - '07-'08 (year to year) Secondary Stock offerings of clean energy firms across global markets was **\$25.4 billion** in 2007.

- ▶ President-elect Obama's New Energy Plan for America:
 - Create 4 million new jobs
 - Invest up to \$1 trillion in economic stimulus with a major portion dedicated to "energy independence thru increased renewable energy sources"
 - Increase USA's electricity from renewable sources to 25% by 2025.
 - Launch economy-wide cap and trade program to reduce greenhouse gas emissions 80% by 2050.
 - Production Tax Credit (PTC) for 5 years

- ▶ **URGENT VC's unique competitive advantage**
 - URGENT VC's **urban focus, sustainable city venture screening criteria , management expertise** and unique **access** to the Obama Administration offers a strong competitive advantage at a critical moment for the Clean Tech sector

 - **Our unique Sustainable City Screening Criteria (SC2):**
 - URGENT VC will identify "game changing" CleanTech ventures most likely to succeed-
 - Access to large-scale waste to energy opportunities
 - Access to large, centralized energy customers (speed to sale of Kwh)
 - Achievement of higher per capita carbon emission reductions
 - Matching of upcoming Public Sector needs, Subsidies, Public/Private investments and solutions

 - **Our management expertise brings:**
 - 46 years of successful entrepreneurial front-line operations making tough choices while scaling in a sustainable way
 - Unique Sustainable cities networks
 - Strong Public policy expertise with a focus on accessing top civic decision makers at the city, state and federal level

 - Our **frontline experiences** empower us to have a long term view on building great companies to create green cities.



Portfolio Prospect Areas

ENERGY (MARINE, WIND, SOLAR, BIOMASS), WASTE AND WATER

MARKET for URGENT VC Ventures

- ▶ 600 municipalities with over 50,000 population that offer-
 - Density of population
 - Access to large amounts of waste as a raw material
 - Massive public commitment to green jobs and energy independence
 - Massive Public/Private Commitment to Carbon Footprint Reduction

URGENT VC “Solution Suite- Marine, Solar and Waste to Energy”:

MARINE

- ▶ River and Tidal Energy. Tidal/River energy is most predictable and highly cost effective for energy generation

SOLAR

- ▶ Solar Fields at municipal locations. Solar Energy is high efficiency and low-cost

WASTE TO ENERGY

- ▶ Organic Waste is recycled at municipal locations and then used to generate green power and products.

Revenue streams created via tipping fees and sale of methane energy, compost and greenhouse plants for local food source while creating green jobs.

Investor Opportunities

▶ **URGENT VC, LLP- GREEN CITY FUND #1**

- Founding Investor Group will have the opportunity to join an investor pool of **\$100 million**
- Minimum Individual LP Investment Position: \$1 million.

- **Use of Funds:**
 - Investment in **10 to 15** of the best portfolio ventures (average investment per venture **up to \$5 million**)
 - **20% reserve** to be held and used in future “pay to play” rounds
 - **2% Management Fees** per year to be used in operations and retention of URGENT VC Team
 - When appropriate URGENT VC Team to provide paid advisory services to client firms as well.

- **Investment Return & Horizon**
 - **Preferred Return Dividend of 5 % over lifetime of investment plus % of profit share**
 - Length of Timeframe: **10 years**. Exit thru a merger, sale, or initial public offering exit strategy.

▶ **PROJECT FINANCE**

- URGENT VC seeks out project finance partners on a deal by deal basis.
- Public private partnerships
- URGENT VC team may provide interim management.

▶ **SOCIAL RETURNS & REWARDS**

Green job creation

Carbon footprint reduction

Sustainable Cities



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Rewards and Risks

Rewards

Early Stage Ventures have potential for 2x+ return and 5% Preferred Dividend Return
URGENT VC Team has proven positive cash flow “business building” experiences
Greater Energy Independence and Pollution Reduction
Green Job Creation
Leveraging Public \$ reduces risk of early stage investor dilution
Positioning for global marketplace with entry into USA market in highly leveraged way

Risks

Early Stage Ventures have high risk potential for investor capital loss
Urgent VC as new endeavor has limited track record
CleanTech “Innovation” Rate > Turn-Key and Commercialization Rate
CleanTech Sector highly volatile
Low rate of IPO/liquidation events due to current market activities
Access to the Grid for Energy Sales
Long time horizon for Investor returns- 10 years



Risk Reduction for Ventures

URGENT VC Risk Reduction Factors:

- URGENT VC has an experienced Human Capital Resource Team in place
- 2009 will see a new era of political will and governmental support for CleanTech

Venture Related, URGENT VC-

- Aligns with top universities and corporate R&D centers to identify ventures that are pre-revenue, prototype proven, intellectual property protected.
- Seeks venture founders with proven track records of experiences in proven technologies with high levels of engineering expertise.
- Seeks founding teams which are open to mentorship and guidance
- Seeks to provide high level of support skills to our ventures, in particular proven business development skills
- Provides strong links to the public sector

Cash Flow Related-

- Intense focus on speed to positive cash flow as an essential element of the business model vs. financial engineering
- Insurance to cover business interruption loss and long term revenue streams
- Long term power purchase agreements
- Long term feed-stock agreements



URGENT VC Business Model

START-UP STAGE: (2008-2011- 3 year plan)

- ▶ **Conduct Project Finance Deals** while recruiting investors for **Green City Fund #1**
 - Screen and Commence Engagement with 2 target ventures and bring to market with positive cash flow within 36 months

EARLY GROWTH STAGE: (2011- 2016- 5 year plan)

- ▶ **Close URGENT VC Green City Fund #1 fully funded at \$100 million.**
- ▶ **Build out URGENT VC Team** – Staffing to ramp according to deal flow
 - **General Partner** (1-2 General Partners will be added as deal flow and the firm scales):
 - Annual P&L Performance, Investor and Venture Relations, New Venture Coaching, Media Relations
 - **Partner**
 - Sustainable Strategies / Public Policy / U.S.A. Investor Relations
 - **Director(s)**
 - Operations Due Diligence and Risk Management
 - Innovation Technical Analysis – Science, Technology, Commercialization
 - International Deal Flow – LP Investor / New Venture Relations
 - **Associate(s)**
 - Office Operations
 - Communications
- ▶ **Invest funds from URGENT VC GREEN CITY FUND #1 in up to 15 High Potential Ventures**

RAPID GROWTH STAGE: (2016-2026- 10 year plan):

- ▶ **Build out firm as an Energy Venture Development Holding Company along with a harvest of the top 5 firms** thru sale of firms to Strategic Partners and/or via merger or IPO.



URGENT VC Human Capital

We have the resources, frontline experience and national/global policy linkages that can help energy be made better.

We can help strategic ventures overcome the challenges of bringing great technology to commercialization and building successful companies out of early stage technology ventures.

Our strong, seasoned executive team is supported by an influential advisory board that provides leading expertise in operations, innovations and public policy.



Chairman,CEO & General Partner- Michael J. Caslin, III

EDUCATION

- ▶ Manhattanville College, Dual Major, Economics and Political Science, B.A., 1980
- ▶ Georgetown University, Summer Fellowship, International Economics and Political Science, 1978
- ▶ Additional studies at: U. of Arizona Economics Science Laboratory, Emory U.-Venture Capital Institute

FUNDRAISING LEADERSHIP EXPERIENCE

- ▶ Raised and Placed \$125 Million from private sector and \$5 million from Federal and State Sectors for new and scalable social and entrepreneurial ventures

OPERATIONAL AND FINANCIAL EXPERIENCE

- ▶ 20 years of C-Level business leadership:
 - CEO of global social venture- NFTE- National Foundation for Teaching Entrepreneurship. Led NFTE from insolvency and no endowment to \$15 million annual revenue with \$10 million endowment. Sponsor base expanded from 1 to 1,000+ corporate sponsors including Goldman Sachs and Koch Industries. Led the expansion of operations from single city serving 200 to 31 states and 14 countries reaching 240,000 cumulatively. Success was case studied twice by Harvard Business School. Globally recognized member of World Economic Forum at Davos. Policy advisor to UK's DEMOS and USA's Aspen Institute. Success featured by BBC, NY Times, National Public Radio, Washington Post, LA Time and CNN.
- ▶ 8 years of Caslin Group Consultancy advising 50 firms in 12 industries in corporate turn-around and scaling issues

THOUGHT LEADERSHIP/SUSTAINABLE CITY EXPERTISE

- ▶ Testimony provided to:
 - US Congress, White House, US Agencies - Commerce, Labor, Small Business, Treasury
 - United Nations - UNDP, UNECE
- ▶ Babson College Entrepreneurship Faculty Member and Lecturer at Harvard Graduate School of Business, Dartmouth Tuck, University of Hong Kong, USC - Marshall School and Stanford University Graduate School of Business
- ▶ National Policy contributions – DEMOS, U.K. and Aspen Institute and Heritage Foundation
- ▶ Urban Ecology Institute at Boston College, Co-Founder, Chairman of the Board, 1998- Present
- ▶ Norfolk Trust Global Fellow on Sustainable Cities - 12 city/5 continent field study, 1999
- ▶ CleanTech Corridor, Director, 2009



Partner - Charles P. Lord, Esq.

Focus: Sustainable Strategies / Public Policy / Investor Relations

▶ EDUCATION

- Yale University, B.A., 1987, *cum laude*, Senior Thesis: US Environmental History
- University of Virginia School of Law, Editor-in-Chief Law Review (1992)

▶ SOCIAL VENTURE BUSINESS EXPERIENCE (15 years of C-level experience):

- Co-Founder and Co-Executive Director – ACE: Alternatives for Community Environment, the leading environmental justice center in New England
- Co-Founder and Executive Director– Urban Ecology Institute at Boston College

▶ PUBLIC POLICY EXPERIENCE

- National Science Foundation, Co-Principal Investigator, Baltimore Ecosystems Study
- The Urban Ecology Collaborative, Chair of the 9-city regional collaborative providing model programs, federal agency testimony and consultation to member cities.
- Boston College – Director, Environmental Policy, Environmental Studies Program
- Boston College Law School – Visiting Scholar
- Publications - Urban Sustainability
 - Op-Eds, Environmental Law Reviews
 - Notable Publication: “Natural Cities: Urban Ecology and the Restoration of Urban Eco Systems”, Virginia Environmental Law Journal (2003)
 - National Peer Review Award – Top 10 Environmental Law Articles (1991)



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URGENT VC Team Members

- ▶ **Deal Management Principal- To Be Recruited**
- ▶ **Technical Startup Specialist – Matthew Ritter**
 - Olin College of Engineering; Johns Hopkins University Center for Talented Youth
 - Project Experience:
 - Massachusetts Institute of Technology (MIT): Media Lab, Solar Decathlon, Vehicle Design Summit
 - Technical Startup Consulting: Green Canary, Canditto, SciBucks, SolarWave, RawSolar, Green Mountain Engineering
 - Designed and implemented Flash Conference design methodology to lead conference on technical solutions for sanitation in Guatemala
- ▶ **Associate/Communications & Research – Stephanie Ligon**
 - UC Santa Barbara – Law & Sociology, Cum Laude
 - Corporate/Strategy Experience:
 - Robert Bird & Partners, UK
 - Diligence USA, Washington DC
 - California Secretary of State

Advisory Board

OPERATIONS: SCALABILITY, SUSTAINABILITY, FINANCE & VALUATION

- ▶ **Leon Agnew**, Senior Executive, Enterprise Ireland, Ireland
- ▶ **Len Green, CPA**, CEO, Green Group, USA-NJ
- ▶ **Eric Brisson**, Principal, Ilog (An IBM Company), France
- ▶ **Titus Brenninkmeyer**, President, Solgenix, USA-CA
- ▶ **Roger Freeman, Esq.**, Ferriter Scobbo & Rodophele PC
- ▶ **Tom Harrison**, Chairman, Morston Assets, UK
- ▶ **Andrew Karsgaard**, VP, Bank of Montreal, Canada
- ▶ **Glenn Kaufman**, President, Kaufman & Company, USA-NY
- ▶ **Enda O’Coineen**, MD, Kilcullen Kapital Partners, Czech Republic
- ▶ **Susan Gluck Pappajohn**, Principal, Phillips Oppenheim-Exec. Search
- ▶ **Charles Roussel**, Ret., MD-Accenture, USA, Atlantic Philanthropies
- ▶ **Patrick Walsh**, Director, Intel Corporation-Intel Capital, USA-MA

INNOVATION ASSESSMENT: PRODUCT DEVELOPMENT, SUPPLY CHAIN, SUSTAINABILITY DESIGN, RISK MITIGATION

- ▶ **Professor Michael Ditmore, Ph.D.** -UC-Santa Barbara - Kavli Institute for Theoretical Physics.
- ▶ **Dr. Jim Dunn, President, Integrated Energies.** Advisor, **MIT Laboratory for Energy and the Environment**, Past Director, NASA NE Regional Technology Transfer Center and Past CEO, Center for Technology Commercialization.
- ▶ **Dr. Michael Hoffman**, Director, Agricultural Experimental Station, **Cornell University**, CU-Renewable BioEnergy Institute
- ▶ **Matthew Kressy, Principal**, Design Turn Inc. Senior Lecturer **MIT- Engineering Systems Division, Harvard Business** and **MIT Sloan Schools of Business.**
- ▶ **Alejandro Lacreu**, President, Tasher Tech. Architect, **University of Buenos Aires-School of Architecture and Urbanism.**
- ▶ **Professor Ben Lindner, Ph.D.**, Professor of Engineering and System Sustainability, **Olin College of Engineering**
- ▶ **Dr. Wilson McGarel**, Director, Questor Centre- Environmental Science and Technology Research Centre, **The Queens University.** (Belfast, Northern Ireland)
- ▶ **Professor Paul Sabin**, Product and System Design, **Olin College of Engineering**, Principal, Fikst Product Development
- ▶ **Professor Jessica Townsend, Ph.D.**, Professor of Mechanical Engineering/Thermodynamics, **Olin College of Engineering**



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Advisory Board & Outside Services

PUBLIC POLICY

- ▶ **Curtis Archer**, President, Harlem Community Dev. Corp.
 - Commercial & Residential Development and Urban Planning
- ▶ **Andy Breslau**, Executive Director of City Futures/Limits, Ctr. for Urban Future
Past CNN Sr. Manager/Producer
- ▶ **Majora Carter**, President, The Majora Carter Group, LLC
 - Founder, Sustainable So. Bronx Environmental Steward Training Program
- ▶ **John P. DeVillars**, Managing Partner, Blue Wave Ventures and former EPA Region 1 Administrator for the Clinton Administration
- ▶ **The Honorable Governor James Florio**
 - Governor of New Jersey (1990 – 1994), U.S. Member of Congress, Author of US Super Fund Legislation/ Leader for enforcement of Clean Water / Clean Air Act
- ▶ **The Honorable Doug Foy**, President, DIF Enterprises and Serrafix
 - Former Super - Secretary of the State of MA for Transportation, Housing, Environment and Energy
 - Advisor to Mayor Bloomberg and co-author of PlaNYC- the inaugural Sustainability Plan for New York City Founder, Conservation Law Foundation; Board- Urban Ecology Institute
- ▶ **Shelley Kaplan**, A.VP, Babson College, Facilities Management and Planning
 - Leader of Campus Sustainability with 100+ sustainability initiatives
- ▶ **Randy Mitchell**, Intl. Trade Strategis, Private Equity; Sr. Advisor for Entrepreneurship, U.S. Department of Commerce- Intl. Trade Administration
- ▶ **Keith Sernick, Esq.**, Principal, State Street Advisers
 - State/Federal Affairs- Municipal Infrastructure and Sustainability
- ▶ **Dr. Eric Strauss**, Professor- Biology Department, Boston College
 - Co - Founder - Science Director, Urban Ecology Institute (UEI)
- ▶ **Charles Tansey, Esq.** Senior Advisor, Neighborhood Reinvestment Co.
 - Past Director, US Small Business Administration- PRIME

Outside Services- Financial / Tax Services

Accounting/Audit

- ▶ Len Green Financial Services
- ▶ Rothstein Kass

Commercial Banking Services

- ▶ Bank of Montreal
- ▶ First Republic

Legal Services

- ▶ Foley & Hoag, LLP- Corporate Law
- ▶ Holland + Knight, LLP – Municipal Law



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Centers of Collaboration

ACTIVE

- ▶ Boston College – Environmental Sciences
- ▶ Cornell University – Renewable Bio-Energy Initiative (CURBI)
- ▶ MIT Energy Consortia – Energy Initiative
- ▶ Franklin W. Olin College of Engineering – Sustainable Design
- ▶ The Queens University (Belfast, No. Ireland)- Questor Environmental Science and Technology Research Centre
- ▶ University of California, Santa Barbara – Novim Institute

FUTURE CENTERS

- ▶ CleanTech Forum (International/USA)
- ▶ Energy Conservation Center (Japan)
- ▶ Hofstra University, National Center for Suburban Studies – Urban Sustainability Initiative (USA)
- ▶ International Energy Agency (France)
- ▶ Los Alamos Research Labs (USA)
- ▶ National Renewal Energy Lab (USA)
- ▶ National Council of Entrepreneurial Tech Transfer (USA)
- ▶ Oxford Institute of Energy Studies (United Kingdom)
- ▶ The Robert Gordon University – Marine Energy (Scotland)
- ▶ Sandia Research Labs (USA)
- ▶ Santa Fe Institute (USA)
- ▶ State University of New York – Stony Brook (USA)
- ▶ Woods Hole Oceanographic Institute