



GLOBAL URBAN DEVELOPMENT CLIMATE PROSPERITY

US-China Mayors Sustainable Cities
Program

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US-China Long-Term Cooperation for Low Carbon Cities

Low Carbon Cities (1)

Addressing climate change by:

- Investing in sustainable industrial development based on tech innovation and resource efficiency
- Implementing greenhouse gas reduction strategies to:
 - Save money
 - Promote employment and income growth and sustainable business and community development
 - Generate economic prosperity and an improved quality of life

Low Carbon Cities will get richer by becoming greener, and earn more money by using fewer resources and cleaner technologies

Low Carbon Cities (2)

Formed through an Agreement signed by:

- **Energy Research Institute, National Development and Reform Commission (NDRC)**
- **China Institute of Strategy and Management**
- **Peking University Institute of Clean Energy**
- **Sustainable Development Technology Foundation**
- **Global Urban Development**



Role of Global Urban Development

- **Coordinating U.S. participation**
- **Recruited the participating U.S. cities/regions**
- **Providing the Climate Prosperity Strategy sustainable economic development framework**



Global Urban Development

Global Urban Development: Organization

- **Directed by an international Board of Directors and Advisory Board consisting of distinguished urban scholars and practitioners from around the world**
- **Publisher of the online *Global Urban Development Magazine***
- **Ten offices: Barcelona, Beijing, Hong Kong, Istanbul, London, Prague, San Francisco Bay Area, Singapore, Sydney, and Washington, D.C.**
- **www.globalurban.org**

Global Urban Development: Mission

- **Finding innovative and practical solutions for the world's urban problems in order to improve the quality of life in urban communities worldwide**
- **Organizing dialogues and designing projects that generate strategic policy interventions and program innovations which can be replicated on a very large scale**



CLIMATE PROSPERITY

Climate Prosperity

- **Low Carbon Cities will use an economic development framework called Climate Prosperity**
- **Beginning in 2007, Global Urban Development received financial support from the Rockefeller Brothers Fund and the Environmental Defense Fund to create Climate Prosperity**
- **Climate Prosperity:**
 - **Recognizes that the climate crisis is the greatest economic opportunity of our time**
 - **Integrates sustainability with economic development theory and practice**

Three Climate Prosperity Principles

- *Green Savings*—cutting costs, reducing waste, saving money, and improving the bottom line through innovation and efficiency
- *Green Opportunities*—growing businesses, jobs, and incomes by enhancing productivity and competitiveness through technological innovation and resource efficiency
- *Green Talent*—providing education and training to develop the entrepreneurial, managerial, and employment skills that will be increasingly demanded in the global marketplace

Climate Prosperity Definitions

- **Climate Prosperity pursues substantial economic and employment growth and sustainable business/community development...**
- **By demonstrating that innovation, efficiency, and conservation in the use and reuse of all natural and human resources is the best way to increase jobs, incomes, productivity, and competitiveness**
- **Climate Prosperity seeks to be the most cost-effective method of promoting renewable energy and clean technologies...**
- **Thereby protecting the environment, and preventing harmful impacts from global warming**

Climate Prosperity Alliance (1)

Global Urban Development manages the Climate Prosperity Alliance providing guidance/direction for:

- **Climate Prosperity Strategies: sustainable economic development strategies for cities/regions**
- **The Global Climate Prosperity Agreement: commitment by financial institutions to invest \$100 billion a year for 10 years to build renewable energy and clean tech infrastructure in developing countries**

Climate Prosperity Alliance (2)

- **Climate Prosperity Businesses:** improving the bottom line of businesses through resource efficiency and energy productivity
- **Climate Prosperity Citizens:** empowering people to create and implement green plans for themselves, their families and their households
www.climateprosperitycitizens.com



SUSTAINABILITY IN BUSINESS

Sustainability in Business (1)

- **The concept of Climate Prosperity is based on the successes of the business sustainability movement in companies such as:**
 - **WalMart, IKEA, and General Electric**
 - **IBM, Google, and Apple**
 - **Toyota, DuPont, Nike, and Interface**
- **These businesses have already significantly improved their bottom lines through technological innovation and resource efficiency**

Sustainability in Business (2)

- **Many business experts advocate the model of innovation, efficiency, and sustainability for improving corporate financial, social, and environmental performance, including:**
 - **Amory Lovins, Hunter Lovins, and Paul Hawken**
 - **Peter Senge and Karl-Henrik Robert**
 - **Ray Anderson and William McDonough**
 - **Daniel Esty, and the McKinsey Global Institute**

- **15 major studies all agree on the validity of the business case for the sustainability model**

Sustainability in Business (3)

- **For example, DuPont responded to “peak oil” by:**
 - **Switching from petrochemicals to life science/ biologically based products**
 - **Saving \$3 billion while improving profitability**
 - **Expanding revenues/market share producing goods that are better for the environment**

- **The main argument of Climate Prosperity is that the sustainability model will:**
 - **Work just as well for cities as it does for companies**
 - **Be as effective for economic development as it is for business development**

Climate Prosperity Examples (1)

- **Californians saved \$56 billion on electricity expenses since the 1970s through improved energy efficiency encouraged by:**
 - **State and local policies requiring higher standards for buildings and electrical appliances**
 - **Financial incentives for energy efficiency and renewable energy**
- **Private consumers reinvested much of these savings in the state's economy, contributing to:**
 - **Higher economic growth and greater prosperity**
 - **1.5 million full-time jobs with total annual income of \$45 million**

Climate Prosperity Examples (2)

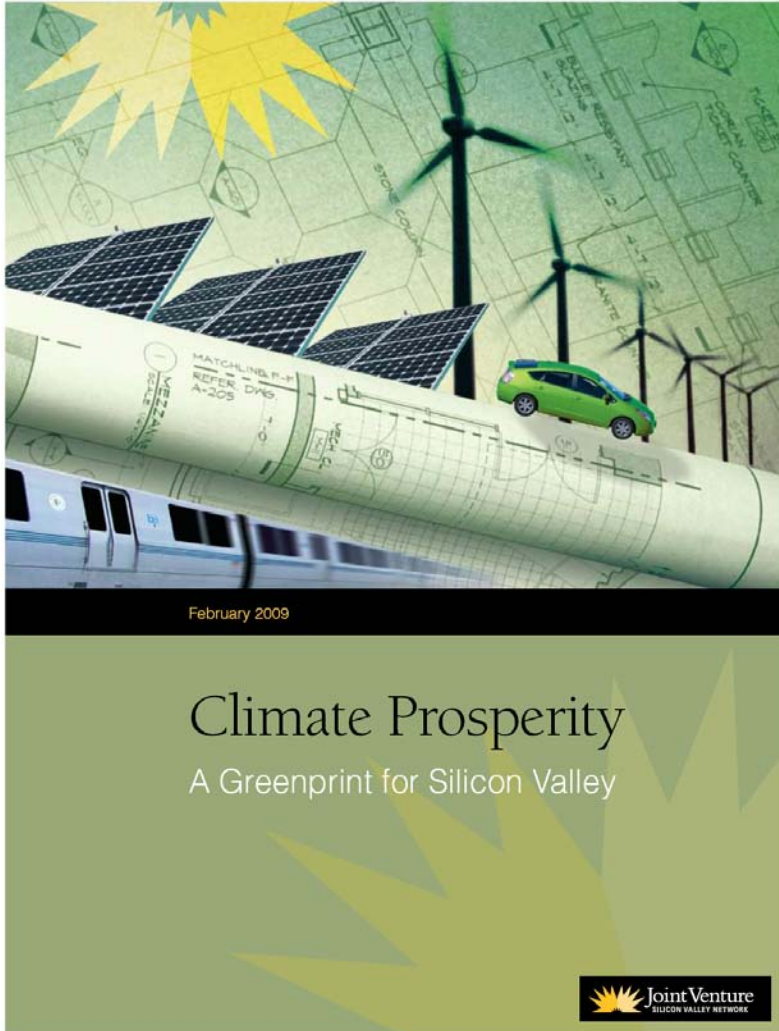
- **People in metro Portland, Oregon save more than \$2 billion annually over the past 3 decades due to smart growth land-use and transportation policies**
- **By modestly increasing population and building densities, developing light-rail transit, and mixed-use communities that encourage walking and bicycling, Portlanders have:**
 - **Reduced greenhouse gas emissions and vehicle miles traveled**
 - **Substantially increased jobs, incomes, and investments**
- **California and Portland both “got richer by becoming greener”**



CLIMATE PROSPERITY STRATEGIES

Silicon Valley
The State of Delaware
Southwest Florida

Silicon Valley Climate Prosperity Strategy

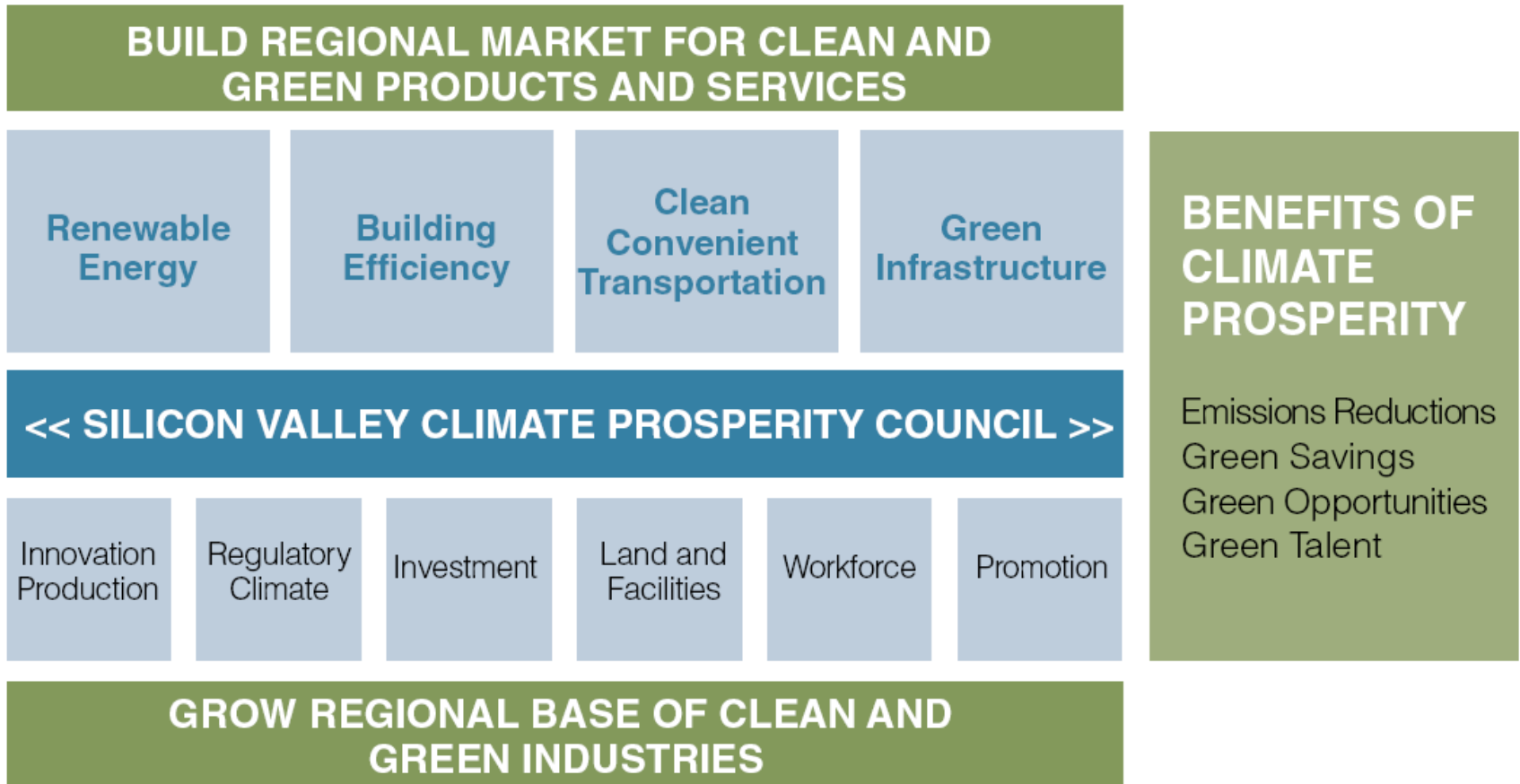


A Greenprint for Silicon Valley

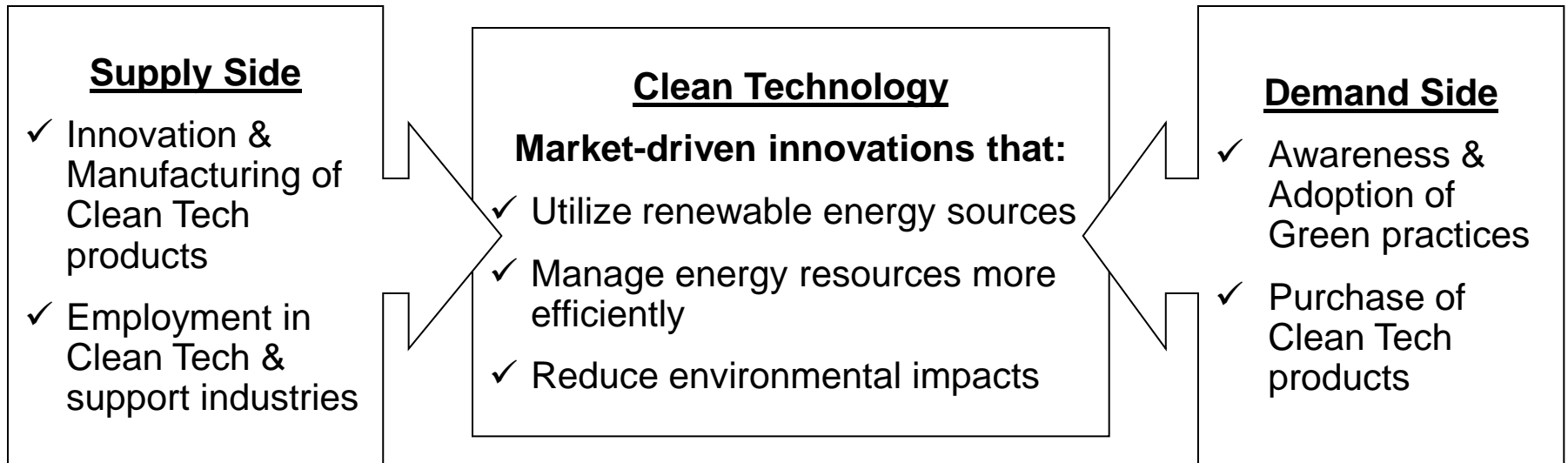
Greenprint Goals

- **Enhance Regional Competitiveness (Green Savings)**
- **Reduce Environmental Footprint of Silicon Valley (Green Savings)**
- **Pursue New Investment & Industries (Green Opportunities)**
- **Demonstrate that economic growth & environmental sustainability are interconnected (Green Opportunities)**
- **Provide Range of Career Opportunities (Green Talent)**

Greenprint Framework



Regions Can Create a Market and Spur Growth by Influencing both Supply & Demand-side Levers



Green Savings

BUILD REGIONAL MARKET FOR CLEAN AND GREEN PRODUCTS AND SERVICES

Renewable Energy

- Streamline and standardize permitting and inspections
- Expand the use of regional public procurements
- Expand use of special assessment districts to simplify financing
- Simplify rebate application process

Building Efficiency

- Standardize green building policies across the region
- Update existing buildings for energy efficiency
- Trigger energy efficiency audits on sale
- Ensure access to energy efficiency for all

Clean, Convenient Transportation

- Deploy charging stations for electric vehicles
- Commit to public fleets of very low/zero-emissions vehicles
- Support prototyping of low/zero-carbon vehicles using advanced technologies
- Expand public transit options

Green Infrastructure

- Develop smart grid zones to demonstrate the potential
- Deploy smart meters and make the data available
- Integrate local and urban power generation with plug-in infrastructure

Green Opportunities

- ***Renewable Energy:*** solar (PV, CIGS, CSP, CPV), fuel cell, storage/distribution infrastructure
- ***Green Building:*** energy efficiency, control & monitoring systems, LED lighting, materials
- ***Clean Transportation:*** alternative fuels & vehicles, mass-transit, smart infrastructure



Green Opportunities

Innovation Production

- Provide incubation services
- Provide testing/ prototyping resources
- Conduct demonstration projects

Regulatory Climate

- Expedite expansions for green companies
- Advocate for supportive state, federal policies

Investment

- Develop innovative incentives
- Secure public and private grants

Land and Facilities

- Provide site location assistance
- Provide access to high-cost tools

Green Talent

	Innovation / Production Jobs	Installation / Support Jobs
Renewable Energy	R&D, Engineering, Manufacturing, Assembly in Solar Wind Turbines, Fuel Cells, Inverters, Energy Storage, Transmission	Integrators, Electricians, Repair Interconnection, Software Engineers, Sales, Financing, Maintenance
Green Building	Control Systems, LED lighting, HVAC systems, Smart Appliances, Water Recycling/ Conservation, Materials, Waste Recycling	Architects, Construction Labor, Electricians, Plumbers, Carpenters, Building Operators, Heating/ Cooling, Roofers, Janitorial, Repair
Clean Transportation	Alternative Fuels/Vehicles, Biofuels, Materials/ Components, Electronics, Infrastructure/ Charging Stations, Drive-trains, Batteries	Distribution, Sales, Repair, Maintenance, Financing, Infrastructure Construction

Green Talent

Integrating innovative training programs:

- **On-the-job training & classroom programs**
- **Industry involvement in community college curricula**
- **Job placement/employee recruitment services**
- **Green collar job training with Federal, State and private funds**

State of Delaware: Goals

Climate Prosperity Strategy Goals

- **Jobs, jobs and more jobs**
- **Environmental stewardship**
- **Leadership, to enhance competitiveness**

State of Delaware: Objectives

Climate Prosperity Strategy Objectives

- **Retain/create jobs in existing businesses through adaptation to the new energy economy**
- **Spur the start-up of new businesses around conservation, efficiency, reuse, and renewables**
- **Attract and recruit new green businesses**
- **Improve water quality**
- **Landfill diversion**
- **Be recognized as a state that effectively promotes green business development and boasts a high quality of life**

Green Savings

Delaware Modernization Service for businesses and houses

- **Promote standardized energy efficiency audits, train auditors, and facilitate community-wide audits in homes and businesses**
- **Provide advice on what to do and how to do it**
- **Provide grants/low interest loans for retrofits**
- **Give information on financing and support programs**
- **Act as a clearinghouse for information on suppliers and contractors who can do the work**
- **Provide on-going monitoring and technical assistance**

Green Opportunities

Delaware Global Green Supply Chain Service:

- **Analyze regional, national and global renewable energy and energy efficiency supply chains**
- **Develop initiative to work directly with Delaware's businesses**

Eco-Knowledge Business Networks:

- **Networks identified: marine energy; electric vehicles; and life sciences**
- **Potential networks: green financial services; sustainable agriculture; climate prosperity-based economic development; and eco-tourism**
- **Facilitate funding for R&D**
- **Public policy**

Green Talent

Delaware Green Talent Initiative

- **Training blueprint for Delaware's energy economy**
- **Partner with organized labor, higher ed, industry, high schools/vocational-technical education**
- **Train new workforce entrants**
- **Train, counsel displaced workers; provide placement help and ongoing assistance**

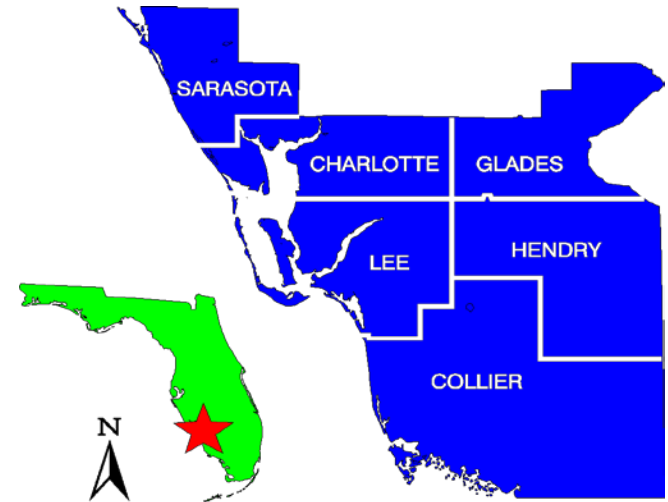
Eco-Knowledge Networks

- **Develop the talent networks that parallel the chosen business networks**

Southwest Florida Climate Prosperity Strategy

SW Florida Regional Planning Council

- 34 member council
- 24 elected officials, representing 6 counties and 16 cities
- 5 state agency representatives
- 5 gubernatorial appointees representing:
 - Education
 - Business
 - Environment
 - Economic development
- 27 Staff



Green Savings

- ***Eco-Smart Development:*** Establishment of solar powered, energy efficient, walkable communities, such as Babcock Ranch, with preservation zones and organic agriculture. Others include – Ave Maria, Big Cypress, Lakewood Ranch, and Green Mile
- ***Hurricane/Energy Efficient Retrofits:*** Development and implementation of a new type of retrofit that combines hurricane hardening with energy efficiency, in cooperation with Florida House
- ***Green Business Partnership:*** Expansion of the Sarasota Green Business Partnership to other counties in the region, encouraging environmental stewardship by assisting and recognizing businesses that operate in an environmentally responsible manner
- ***Climate Adaptation:*** Completion of the Charlotte Harbor Climate Adaptation Strategy, leading to Climate Adaptation Consultations with other regions
- ***Environmental Mitigation Banking:*** Institution of environmental mitigation banks, such as Panther Island and Big Cypress, to create, preserve, restore, or enhance a wetland, stream, or habitat conservation area

Green Opportunities

- **Biofuel Industry:** Partnership with the Farm to Fuel® Initiative to expand the number of biofuel vehicles; increase fueling facilities; and expand production, such as the new Verenium owned Highlands Ethanol Project
- **Solar Industry:** Promotion of the installation and use of solar energy, particularly solar hot water heating
- **Green Inland Port:** Establishment of a Green Port Policy for the new Inland Port, which will be an off-site warehousing and distribution center to which Florida seaports can ship containers for unpacking
- **Green Incubator/Accelerator:** Creation of a green dimension for the Southwest Florida Virtual Incubator/Accelerator and the Regional Incubator Network to provide assistance to green and clean tech businesses
- **Sustainable Agriculture:** Partnership with Florida Certified Organic Growers and Consumers to expand the market for organic agricultural products and to assist farmers to undertake or expand organic farms
- **Ecotourism:** Partnership with the Society for Ethical Ecotourism – Southwest Florida (SEE SW FLA) to support of the ecotourism industry in the region

Green Talent

- ***Green Talent Program:*** Partner with the SW Florida Workforce Investment Board to organize a Green Talent Leadership Group to design/implement a Green Talent Program to identify green industry sub-sectors; recruit job candidates; provide job readiness and skill training; and arrange for placement and post-placement support
- ***Green Business Education:*** Partnership with one or more Florida educational institutions to develop and implement a Green Business Education Program for clean tech entrepreneurs and green business managers with responsibility for environmental/sustainability programs
- ***Location-Neutral Workforce:*** Promotion, among retirees, 2nd home owners, and vacationers, of “location-neutral” work opportunities that do not require particular locations due to Internet and broadband connections

**Climate
Prosperity**
**is seeing
the opportunity**

**in the
challenge!**





THANK YOU