



The Clean Economy is Here

Metro Regions are Leading the Way

Clean Economy Solutions
Progress Report of the First Six Years, 2008-2014

January 2015



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Clean Economy Solutions is a nonprofit clean economy virtual accelerator and national civic intermediary for metro regions, helping them maximize their existing clean economy opportunities, envision how they could grow, chart a roadmap for getting there, and bring their plans to fruition. Clean Economy Solutions brings metro regions, businesses, investors, economic development stakeholders, and markets together to grow the clean economy, focusing on real business transactions and practical economic development – beyond the politics.

Clean Economy Solutions • Advancing America's Economy Region by Region
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Collaborative Economics is a Silicon Valley-based research and strategic consulting organization. COECON works with businesses, foundations, government, education, and community sectors to do leading edge innovation and clean economy analysis for states and regions across the country. COECON works with teams to help them create breakthroughs in how people think and act regarding their region. Collaborative Economics' clients have the passion, vision and commitment to blaze a new pathway for their community. They understand that a new kind of leadership is required to create great places, with thriving economies and world-class quality of life.

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Dear Friends,

In the Fall of 2007, the Rockefeller Brothers Fund committed itself to testing the proposition that responding to climate change could represent not only an environmental imperative but, in fact, also an extraordinary economic development opportunity. To explore this proposition, Michael Northrop, Program Director of Sustainable Development at the Rockefeller Brother Fund invited 30 leaders from the environmental, business, labor, and government communities to the Fund's Pocantico Center to find common ground and give further definition to this opportunity.

As a result of these discussions, a national nonprofit, initially called Climate Prosperity, Inc. — ultimately becoming [Clean Economy Solutions](#) (CES) — was launched in 2008 with funding from the Rockefeller Brothers Fund and other philanthropic support. CES established the goal of creating a national economic development initiative focused on supporting and leveraging regional clean economy solutions. Today, CES is a nonpartisan national civic intermediary organization that brings together regional businesses, investors, entrepreneurs, civic, and economic development stakeholders with the objective of growing the clean economy in regions across the country.

This report summarizes our progress and lessons learned from our first six years, and outlines our next steps for working with our regional and national partners to grow the clean economy. We are excited about our accomplishments to date and think the time is right for this kind of regionally driven, national initiative.

Some of key lessons identified in this report include the following:

- Clean economy growth is now occurring in “investment-ready regions” across the nation.
- Regions are unique and need locally-based solutions.
- Policy can help grow markets and attract investment.
- Regions have a shared investment need in order to scale clean economy growth.
- Barriers to investment need to be resolved.
- New and emerging financing mechanisms are needed to scale and leverage the growth of the clean economy.

In its next phase, CES will pursue strategies to establish a national financial intermediary to grow the clean economy in regions. This proposed national financial intermediary will invest in regions and leverage their current efforts to grow local companies and jobs, support clean technology innovation, decrease carbon emissions, and improve environmental quality and public health through both investment and best practices technical assistance. This intermediary could be modeled after existing organizations such as the [Nonprofit Finance Fund](#) or the [Local Investment Support Corporation's](#) (LISC), which was established in 1979 by foundations and corporations to invest in housing and community development efforts and neighborhoods across the country. The clean economy version of LISC would be similar in being a national financial intermediary to invest and provide technical assistance at the local level, but would differ in issue focus by investing in clean energy and technology economic and entrepreneurial development efforts. Initial discussions about a prospective “Clean Economy LISC” have been held with regional partners, and potential funders and CES will further develop and refine these ideas with stakeholders in 2015.

We invite you to review this report and join us in the next phase of Clean Economy Solutions.

Sincerely,



Richard C.D. Fleming
Chairman, Board of Trustees



Andre Pettigrew
Executive Director

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Introduction

Clean Economy Solutions stems from recognition of climate change as both an environmental imperative and an economic development opportunity. This national nonprofit, initially called Climate Prosperity, Inc. — ultimately becoming [Clean Economy Solutions](#) (CES) — was established in 2008 with funding from the Rockefeller Brothers Fund and other philanthropic support as a national clean economy development initiative. CES is a nonpartisan national civic intermediary that brings together regional businesses, investors, entrepreneurs, civic, and economic development stakeholders, and markets with the objective of growing the clean economy.¹ CES helps these partners focus on real business transactions and practical economic and entrepreneurial development. CES pursues this goal by working directly with regions on projects and strategic analysis to test economic growth strategies, as well as networking best practices among leaders to leverage clean economy development efforts.

CES focused its initial efforts on the Greenprint Initiative, with the goal of demonstrating the direct connection between local economic development and addressing climate change from a pragmatic environmental perspective through five pilots — in Delaware; Denver, CO; Portland, OR; Silicon Valley, CA and St. Louis, MO. The multi-year experience with these pilots has led to expanding the effort to a broad cross-section of regions.

In addition to on-the-ground efforts in regions, CES has convened a series of three-day retreats at the Pocantico Center of the Rockefeller Brothers Fund. A select small group of leaders from regional and national economic and industry organizations, companies, and investment entities gathered at these events. At these strategic networking events, leaders discuss where the clean economy is going, barriers to growth, and possible solutions. At the most recent event in June 2014, leaders identified the need for more sustained investment in regional companies, organizations, and projects, as common barriers to growth.

What is the Clean Economy?

The clean economy includes a range of businesses that provide the products and services that allow the entire economy to reduce carbon emissions and improve efficiencies in the use of natural resources. The clean economy includes, but is not limited to, sectors such as renewable energy, smart grid, advanced transportation, energy storage, water efficiency, and energy efficiency.¹

Discussions at the June 2014 retreat and follow-up conversations with regional leaders provided the impetus and rationale for CES to pursue its next phase: creating a national financial intermediary to provide needed capital and deal capacity to regions. CES is currently working with regions, investors, and leaders from similar efforts such as the Local Investment Support Corporation, Rockefeller Foundation's Resilient Cities, as well as Knight Foundation and others undertaking a national impact investment initiative, to develop this strategy to grow the clean economy market for regions nationwide.

This progress report explores CES' evolution from launching in 2008 through the end of 2014. It shows the establishment of a new approach to clean economy development, the case for working with regions, results from projects and events, and lays out the case for our next phase.

¹ The clean economy spans a wide variety of sectors, and includes the 15 segments of the core clean economy as described in the [2013 California Green Innovation Index](#).

A Revolutionary Approach to Developing the Clean Economy

In 2008, our nation was faced with several economic and environmental threats: on the brink of an economic downturn and stiff global competition for high paying jobs, energy security imperatives to reduce our dependence on foreign oil, and the need to address climate change in the face of international stalemate in Copenhagen. CES envisioned a revolutionary approach to deal with these challenges by promoting energy savings, business opportunities and job creation through “climate prosperity.” Climate prosperity targeted economic and environmental goals concurrently in a manner that both increase enterprise and enhance the environment. CES focused on climate prosperity at the regional level, partnering with business, civic, and government leaders to create low-carbon, prosperous metro areas.

When the Climate Prosperity, Inc. was created, there was an assumption that national climate legislation would set a price for carbon and limit greenhouse gas emission through a then widely discussed cap and trade or a carbon tax. As we now know, this did not happen at either the national or international level and is

unlikely to take place in the current policy environment in Washington, D.C. Therefore, states and regions are now at the center of action. The focus has shifted from carbon emissions trading to renewable portfolio standards, energy efficiency standards, incentives for innovation and technology deployment, investment in companies, workforce/talent development, and utility reforms, including revenue decoupling.

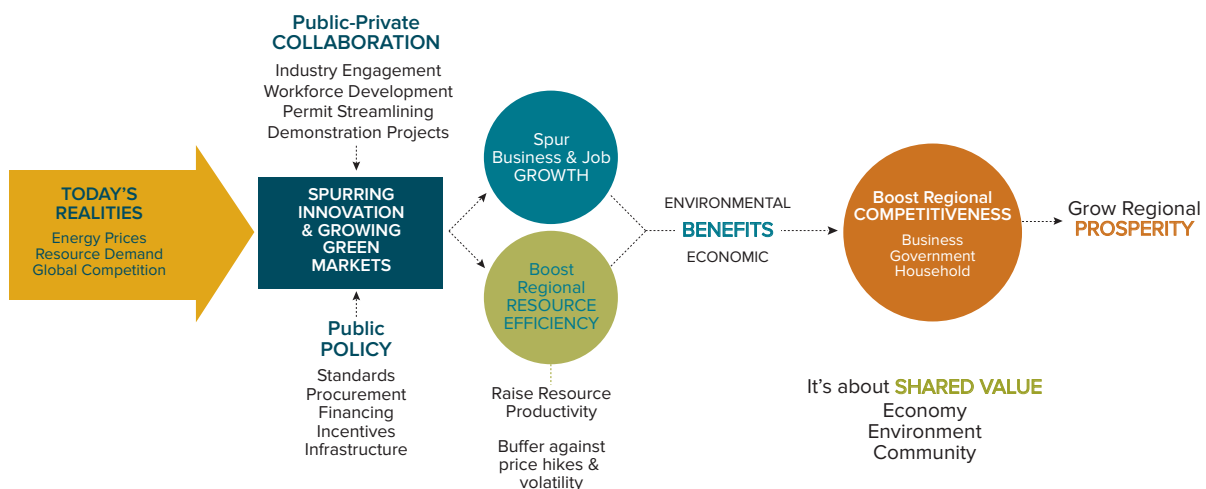
Why focus on regions?

Metro regions are centers of activity for growing the economy, and can be more flexible and responsive to private sector needs compared to federal level. While federal and state policy is important, programs and policies can be activated and leveraged at the local level to be tailored to regional culture and specializations. Regions that are active in the clean economy have started to organize public and private stakeholders around local strengths and economic opportunities.

Establishing a New Formula for Regional Prosperity

CES responded to this new political reality by creating a new formula for growing regional prosperity (for more detail see [Towards a New Prosperity](#)). As shown in the graphic below, today’s realities set the context for regional growth. Public policy can spur innovation and support the growth of “green” markets, and collaborative efforts between business and public leaders can result in driving growth by supporting the deployment of technology. These efforts not only drive regional business and employment growth but also boost energy and resource productivity. By improving efficiencies, businesses, households, and governments

can buffer against rising prices and price volatility. The gains are not only in improving environmental quality, but also in economic and entrepreneurial growth and competitiveness. By improving economic and environmental resilience, regional prosperity can flourish. In the end, it is about shared value across the economy, environment and the community. Shared value between business and regions is one of the key lessons of climate prosperity. CES used this formula as a starting point for conversations with the five regions in its Greenprint Initiative.



Using the Climate Prosperity Framework to Build the Market and Expand the Base

Based on a scan of communities, regions, and states across the country, CES offered the following framework to serve as a guide for regional collaboration. The regional climate prosperity framework includes both demand and supply components that together produce multiple economic and environmental benefits.

- The “demand” component involves building the regional market for green products and services. Activities that create regional demand—from building rating systems and standards to incentives and regulatory policies—are common climate prosperity strategies.
- The “supply” component involves growing the regional base of the cleantech industry. While a region can increase its market for cleantech products and services, this demand can be met by local firms or firms based outside the region. The more that regional demand is met by local firms, the more economic benefits accrue to the region.

When a region actively encourages cleantech demand and supply simultaneously, it can maximize its environmental and economic benefits: reducing greenhouse gas emissions, improving energy savings, expanding business opportunities, and growing cleantech talent and jobs. CES used this framework in its Greenprint Initiative to build both the market and supply base in regions. The efforts of the climate prosperity Greenprint Initiative demonstrate that stimulating economic development and dealing with climate change need not be mutually exclusive. Through the climate prosperity framework, business, environmental and government leaders in regions and states are on the path toward growing jobs, energy savings and economic recovery.



Investment-Ready Clean Economy Regions Emerging as Leaders

Over the last six years of working with regions, we have recognized that some U.S. metropolitan regions are emerging as leaders in the clean economy. These regions achieving regional prosperity as laid out in CES' formula, and creating and capturing the benefits of climate prosperity. At the June 2014 Clean Economy Leadership Exchange, participants identified key attributes that make their region a good location for clean economy investment. "Investment-ready regions" share a number of important attributes, though each region's specific characteristics make them prime locations for different clean economy sectors or parts of the supply chain. CES is now working with these investment-ready regions in its next phase to leverage their actions and grow the clean economy in regions across the nation. Investment-ready regions are those that:

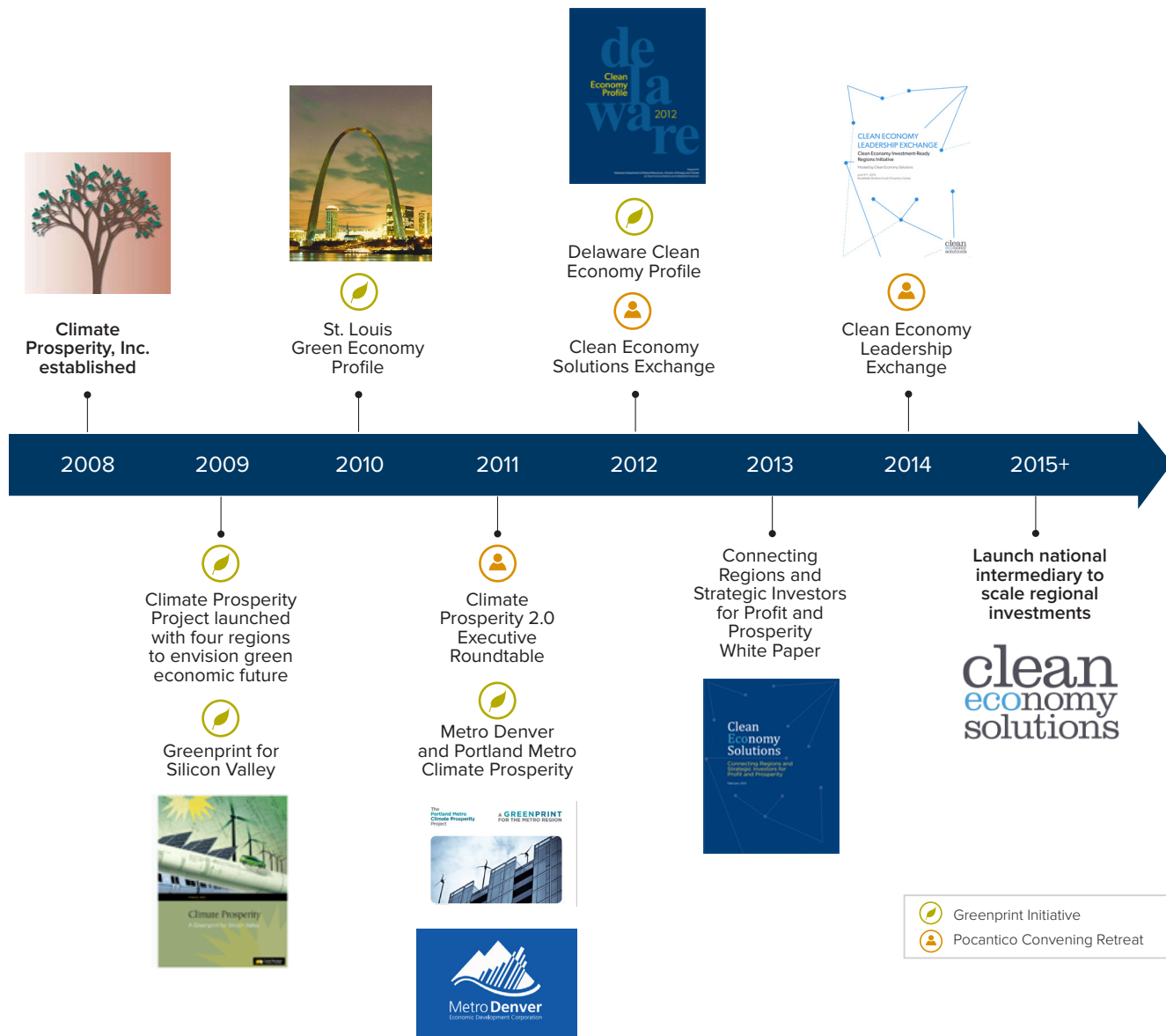
- **Foster a Culture of Entrepreneurship:** Many of these regions have a culture of risk taking and innovation that extends to the advanced energy and clean technology sectors. By fostering a startup culture with incubators, mentor and leadership networks, regions can help spur new technologies and companies.
- **Leverage Local Assets:** Regions take advantage of local assets and specializations such as natural assets (e.g. wind), universities and research

laboratories, skilled workforce, investor networks, and existing industries and corporations. By taking stock of existing assets in and related to the clean economy, regions can better understand gaps and potential areas in which to grow.

- **Develop a Strategic Approach:** These regions are distinct in having a strategic approach to developing clean economy clusters. These approaches include creating company connections to support the sector, collaborating across public and private organizations, fostering industry-led initiatives, and networking investors to provide a continuum of funding sources for all stages of company growth.
- **Attend to Both Market Demand and Supply:** Regions understand the need to create supportive environments to grow the demand for products while also creating the supply for local and outside markets. Strong private sector leadership, along with a supportive public sector and policies, can be important drivers for markets.

Clean Economy Solutions Evolution

The timeline below shows a summary of CES' initiatives, events, and related reports to date. The Greenprint Initiative launched in 2009 and continued through 2012, and the Pocantico convening retreat events have occurred about once a year since 2008. The full list of reports and documents that can be downloaded are on the [CES website](#).





Greenprint Initiative

To test assumptions about the importance of promoting private-public collaboration to stimulate both the demand and supply side of regional clean economy markets, CES launched pilot projects in several regions during 2009-2012. Each of these projects provided opportunities to demonstrate various strategies and key concepts in a variety of regional settings.

Each region received a \$25,000 matching grant from Rockefeller Brothers Fund as well as technical assistance to develop a Greenprint – a strategic plan that would be appropriate to the region’s industry strengths and clean economy opportunities. CES worked with a team of regional leaders to develop and implement each project. A summary of each pilot project is described below.

Silicon Valley: Joint Venture [Silicon Valley](#) took the lead in engaging industry and local government leaders for this pilot project. The leaders engaged in a process of identifying clean economy market segments and developing strategies for promoting demand in renewable energy and energy efficiency as part of the [Silicon Valley Greenprint](#). Joint Venture Silicon Valley established a [Climate Prosperity Program](#) with local government, businesses, and institutions to define and deploy solutions to address environmental challenges. This program has achieved success in a number of regional initiatives, including the development of a historic [regional renewable energy procurement power purchasing agreement](#), a smart grid networking project to test new technologies, and a variety of regional networking and informational events.

St Louis: CES helped the St. Louis region develop a well-received [strategic plan](#) for developing its clean economy, based on a [Green Economy Profile](#) that identified growth of key market segments. The plan’s focus on a sustainable technology cluster, combined

with efforts to reach out to site selection consultants working in that sector, led to St. Louis competing for—and winning—the \$200 million Emerald Automotive Plant, which makes low-emission and zero-emission vans for customers including the British Postal Service. The St. Louis region beat out two-dozen other cities for this 1,000-job deal.

Portland Metro: Under the leadership of the Portland Sustainability Institute, the [Portland Metro Greenprint](#) priorities established finance mechanisms for green innovation; accelerated energy and resource efficiency, commercialized green technologies; cultivated the regional clean tech cluster and developed a pipeline of green talent; and built support and communicated results. The [working group](#) consulted more than 150 regional stakeholders to develop the six action areas. One of the outcomes of the Portland Sustainability Institutes efforts has been the promoting of Eco Districts to foster energy innovation within neighborhoods.

Metro Denver: The [Metro Denver Greenprint](#) process provided an avenue for engaging civic stakeholders in accelerating regional innovation focus on energy efficiency as well as renewable energy. For example, when the startup company Coolerado invented an ultra-high efficiency air conditioning system, CES facilitated demonstration projects with the City of Denver that helped the company attract venture capital. Now Coolerado is selling in 26 countries and continues to grow.

State of Delaware: Working with the Delaware Department of Natural Resources, CES prepared a [Clean Economy Profile](#), which identified clean economy industry segments in Delaware and opportunities to promote innovations in advanced materials/sustainable chemistry working with the private sector and the research community.



Pocantico Convening Events

Since 2008, CES has convened regional and national leaders periodically at the Pocantico Center of the Rockefeller Brothers Fund in New York.

Pocantico convening retreats are small strategic working sessions, with about 30 leaders from public and private sector, including economic development organizations, companies, investment entities, and local government. These strategic working sessions provide a platform for key stakeholders that work on clean economy issues to discuss key challenges and solutions for moving forward, in addition to networking with peer leaders. The Pocantico retreats also provide CES with a base of knowledge to shape future projects and operations.

2008 – Launch of Climate Prosperity Inc. – Rockefeller Brothers Fund’s Sustainable Development Program Director Michael Northrop helped convene the initial Pocantico retreat. This included key economic, investment, and environmental leaders and led to the launch of Climate Prosperity Inc. to help increase local economic development while improving the environment.

2011 Pocantico – Toward Climate Prosperity 2.0 Executive Roundtable – CES brought together national corporate leaders and regional leaders to share best practices on maximizing opportunities in the clean energy economy. Results from this three-day retreat are summarized in [Towards a New Prosperity](#). Key takeaways from the event include:

- **Corporate leaders from some of America’s leading companies** recognize the value of working with other companies and stakeholders to promote energy efficiency and open markets for clean energy.
- **Regional stakeholders from business and government** understand the importance of creating a peer-to-peer learning network to rapidly share Climate Prosperity best practices, metrics, lessons learned and successes.
- **There is recognition of the importance of leadership development** to build more awareness and capacity to promote economic development approaches which support a clean economy and climate prosperity at both the national and regional levels.
- **It is critical to the effort to develop a set of acceptable, easy to understand, common metrics** for measuring and evaluating economic progress toward climate prosperity and to communicate results nationally.
- **The Climate Prosperity Network must establish linkages horizontally and vertically.** Regional projects need to connect to share best practices and also connect across federal and state agencies. The Network can serve as an intermediary between national policy and regional activities in communicating best practices.

2012 Pocantico – Clean Economy Solutions Exchange Executive Roundtable – CES convened [corporate and regional leaders](#) to continue discussions on how regions can drive strategies to grow markets and clean economy companies. Regional participants in this three-day retreat shared their experiences and corporations and investors shared why and how companies are investing in the clean economy in regions.

Building on this 2012 event, CES commissioned a white paper on [Connecting Regions and Strategic Investors for Profit and Prosperity](#) to analyze the opportunity that lies at the intersection of companies, markets, and regions. Key findings of this report include:

- **Clean economy investment trends are changing**, offering new investment opportunities for regions across the country. The clean economy is by no means monolithic; it has grown far beyond wind and solar to include robust sectors ranging from biofuels to energy efficiency. This changing environment allows new areas to participate in the clean economy based on their regional strengths.
- **Strategic corporate investors are emerging** and the types of funding in the clean economy are diversifying, opening up access to capital. National and international corporations, or strategic investors, are emerging as major investors in the clean economy as they increase their investment in startups and growing clean economy companies. The public sector is also continuing to play an important role in the clean economy, offering direct investment such as grants, and a supportive tax and policy landscape to stimulate demand.
- **The location of a company matters and “investment ready regions” are a key** to market success. This report is the first to define aspects of an investment ready region.

2014 Pocantico – Clean Economy Leadership Exchange

- **In June 2014, CES convened 30 leaders from nine metro regions** – along with leaders from venture capital, impact investing, insurance, and private equity – joining forces for another three-day working session to create the core of a national Clean Economy Network to promote innovative “bottom-up” strategies to grow clean-economy markets and foster investments.
- **The nine metro regions at the Pocantico roundtable included Austin, Boston, Cleveland/NE Ohio, Denver, Los Angeles, Minneapolis-St. Paul, Oklahoma City, Research Triangle and Silicon Valley.** Interviews with regional leaders about the retreat and outcomes can be found in [videos linked here](#). The discussions at this event provided the impetus to pursue Clean Economy Solutions’ next phase described at the end of this report. For more detail on this retreat, see Appendix A.

Lessons Learned on Regional Clean Economy Development

The clean economy is no longer an emerging market - it is here. With a \$1.1 trillion global advanced energy market,² it is clearer than ever that there is an opportunity for economic development practitioners and investors to join together to secure the future of this

promising industry cluster. While the national headlines continue to present climate change as a political issue, regional hubs across the country are pursuing the economic opportunity in the clean economy.

What has CES Learned by Working with Regions?

Since 2008, CES has worked with more than 15 U.S. metro regions that are active leaders in this market. These investment-ready regions are making choices and taking actions to better position themselves to be ideal locations for growing clean energy technology companies and industries. In 2008, regional clean economy strategies were nascent and starting to show promise, and CES helped test and leverage these strategies throughout the last six years. In this process, CES and its partners have learned several lessons about growing the clean economy, as outlined below.

- **Clean economy growth occurs at the regional level.** Environmental imperatives and economic development opportunities are most effectively achieved by promoting innovations within “investment-ready” regions.
- **Regions are unique and need locally-based solutions.** Regions have different sector specializations as well as diverse political and institutional cultures. Therefore, regions need to tailor specific solutions to their unique needs by working with local industry, economic, government and workforce partners. These locally-based solutions are important because companies and investors need regions that are prepared to be supportive in terms of capital, markets, workforce, infrastructure, and other attributes important to sustained success of clean economy business ventures.
- **Policy can help grow markets and attract investment.** While state policies can help enable action through incentives, mandates and regulations, these policies are only effective if they stimulate private and public investment in the clean economy at the regional level. Investment-ready regions leverage local assets, including public/private partnerships, local procurement or incentive programs, and state and local public policies to grow markets and attract investment. Capital flows to the most attractive markets with the fewest barriers.
- **Regions have a shared investment need.** While every region has their own unique investment requirements, every region needs access to additional risk capital to scale their clean economy efforts.
- **Barriers to investment need to be resolved.** There are a number of “market failures” that require intervention to achieve greater investment. These barriers and market failures include a lack of knowledge about clean economy opportunities and the “double bottom line” nature of these investments, meaning they have the potential for both financial and social return on investment.
- **New and emerging financing mechanisms need to be scaled and leveraged to grow the clean economy.** Growing regional investments in clean energy will require new and emerging financial instruments including green banks, venture capital, corporate strategic investment and private equity funding, as well as national financial intermediaries, to help scale investments to grow the clean economy nationally.

² Advanced Energy Economy. “Advanced Energy Now: 2014 Market Report.” February 2014.

What are Examples of Clean Economy Growth in Regions?

The following examples are from investment-ready regions Clean Economy Solutions has worked with in its Greenprint initiative and Pocantico convening events.

Austin

Austin, Texas is building off of its history of being a center of technology, entrepreneurship, and innovation to grow its clean economy. Sectors including renewable energy (especially solar and wind), energy efficiency, water technologies, energy storage, oil & gas applications, advanced materials and transportation are particularly active in the region. The region has established a connected network of organizations and companies to develop the clean economy. Stakeholders including the Austin Chamber of Commerce and the industry and cluster development group, CleanTX, are supporting the more than 250 clean energy companies in the region.

They are leveraging local assets such as the Pecan Street Research Institute and Pike Powers Lab to grow the cluster and help advanced research and technology commercialization for areas such as smart grid solutions. The Austin Technology Incubator's (ATI's) Clean Energy Incubator at The University of Texas at Austin is in the middle of the region's activities and has been supporting startup companies and regional innovation since 2001.

ATI's Clean Energy Incubator was recently awarded a three year grant from the U.S. Department of Energy with the National Initiative for Incubators of Clean Energy. Stakeholders also host a number of regional and national events to connect key players, such as the Defense Energy Summit, SXSW Eco event, and South Central Clean Tech Open.

Los Angeles Region

The Los Angeles region has leveraged its assets as a top consumer market, a home to three top-tier research universities (Caltech, UCLA, and USC), the nation's automotive design and international trade capital (with the nation's busiest port complex), and the highest concentration of manufacturing and technology jobs of any county in the country to grow an advanced transportation industry cluster.

Los Angeles has been successful at attracting companies in zero emission vehicle production for both transit and personal vehicles and components, such as China-based BYD, which has located its North American headquarters, energy storage manufacturing, and electric bus manufacturing all in Los Angeles as a result of regional development efforts. The region has a variety of innovation support organizations, such as the Los Angeles Cleantech Incubator and the new e4 Advanced Transportation Center of Southern California, which has been designated by the state to work on advanced transportation issues from Santa Barbara to San Diego and all of the counties in between.

The Los Angeles County Economic Development Corporation (LAEDC) began a group in 2010 to look at the industry cluster forming around advanced transportation. This group (the e4Mobility Alliance) is now a network of 700 companies and stakeholders in advanced transportation who are committed to seeing the industry grow in Los Angeles and throughout the world. These assets have created a supportive infrastructure for companies looking to scale in the region.

Silicon Valley

Silicon Valley is a hub of innovation in the clean economy in a wide range of sectors, including smart grid, energy storage, and electric vehicles. The region leverages its information technology assets and entrepreneurial culture, as well as its strong early-stage financing and research institutions, to develop cutting-edge, clean technologies. The region is home to key research assets, including Lawrence Berkeley National Laboratory and Lawrence Livermore National Laboratory as well as corporate research facilities. Supportive organizations in the region, including Silicon Valley Leadership Group and Prospect Silicon Valley, help advance supportive public policies and accelerate technology solutions. In addition, local governments in the region are supporting the clean economy by providing testing grounds and becoming early adopters for new technologies. For example, the city of San Jose has a demonstration policy to allow companies to utilize city facilities to test their technology for a public audience and recently launched an Innovation Zone to test new smart transportation infrastructure.

St. Louis Region

The St. Louis region quantified their clean economy market at a 54% growth rate (comparable to that of the Silicon Valley) and used that and targeted outreach to the clean economy site selection sector as leverage to successfully attract a zero emission vehicle manufacturing plant by the UK-based Emerald Automotive. Emerald was recently purchased by Geely Group in China (owners of Volvo and London Taxi), which has announced its intent to invest \$300 million in Emerald to build their first North American vehicle manufacturing plant in Hazelwood, MO in suburban St. Louis. This first phase of Emerald is anticipated to generate 1,000 auto assembly and related supplier jobs.

At a region-wide level, the [St. Louis Green Business Challenge](#), now in its fifth year, is one of the initiatives arising from the St. Louis Greenprint. It has engaged 150 companies representing 125,000 employees across the St. Louis region. A partnership between the St. Louis Regional Chamber and the Missouri Botanical Garden, the Green Business Challenge inspires companies to incorporate sustainability strategies into their day-to-day operations. The Challenge offers monthly seminars, on-site technical consulting with each company's green team, and best practice exchanges among companies on business strategies. An annual award program celebrates the achievements of the Challenge participants. The program has become a well-regarded network of local companies making sustainability a priority.

Next Chapter of CES: Growing Regional Clean Economies

Throughout the last six years, CES has continued to document that regions are critical to growing the clean economy. In recent years and particularly in the most recent Pocantico retreat, CES stakeholders shared challenges to securing sustained financing to grow companies in the clean economy. Regional and business leaders discussed how innovation and best practices can be accelerated by creating new financing solutions to provide needed capital to regions, as well as by connecting and leveraging efforts to grow the market for regions nationwide. Therefore, in CES's next phase, it will pursue strategies to establish a national financial intermediary to grow the clean economy in regions. The case for this next phase is also laid out in a [recent article](#) in national Site Selection Magazine by CES Chairman Richard C.D. Fleming (see Appendix B).

Big issues require big actions. Growing the clean economy to achieve substantial job growth across a range of skill levels and global market competitiveness will require a collaborative effort among a number of stakeholders. The investment needed to effectively leverage and scale regional activity may seem daunting, but the investment community has set a precedent for how it can be done.

Foundations and corporations have a history of coming together to solve big problems through collaborative investment. [Local Support Initiatives Corporation](#) (LISC), is one such organization that inspired CES' next phase strategy. LISC was founded in 1979, out of a call for the creation of a new national community reinvestment organization to support the revitalization activities of low and moderate income neighborhoods, as outlined in

the Ford Foundation's discussion paper — Communities and Neighborhoods: A Possible Private Sector Initiative for the 1980s. LISC formally launched in 1980, with a \$10 million capital pool from the Ford Foundation, Aetna Life & Casualty, Atlantic Richfield, The Charles Stewart Mott Foundation, Continental Illinois Bank, International Harvester, Levi Strauss & Co., and Prudential Insurance Co. By 1990, LISC expanded to more than 26 geographic areas and supported 800 community development organizations. In the 1980s, LISC provided many millions of dollars in loans, guarantees, and grants to support efforts such as low income housing and neighborhood development. Between 1980 and 2013, LISC leveraged \$13.8 billion to reach \$41.2 billion in total development.

Interviews with LISC founders and leaders in late 2014 suggest that key success factors for LISC included a broad-based national partnership of major investors responding to LISC and other efforts such as [Living Cities](#) and the [Nonprofit Finance Fund](#) can provide a model and lessons learned for how to leverage regional clean economy action through collaborative action at the national level. CES' effort would be similar in working as a national network with a local focus, and by working to revitalize communities. However, it would differ in issue area by promoting clean technology innovation and economic development while creating clean economy jobs for workers at all skill levels. CES' proposed national financial intermediary would invest in regions and leverage their current efforts to grow local companies and jobs, support clean technology innovation, decrease carbon emissions, and improve environmental quality and public health.

What Would Financial Assistance Look Like?

The proposed national financial intermediary would focus on investing in the supply side of the clean economy. Fewer large scale solutions are emerging to support the supply side, so CES is focusing on these barriers to align with other demand development efforts. The types of financial assistance provided through the proposed intermediary could be wide ranging, depending on the regional and company need. The intermediary and investments could be modeled after and leverage other types of clean economy investments, such as impact investments with a socially responsible strategy, strategic corporate investment, or civic venture capital firms. While the details of the financial assistance would need to be worked out in detail with investors and regional leaders, a few examples are provided below.

1. Grants to support intermediary organizations

- Regional organizations that facilitate strategic connections among regional stakeholders are critical to grow the cluster. These organizations, such as economic development corporations, industry associations, or startup incubators, could be provided grants to support supply side clean economy development activities.

2. Investment in clean economy companies –

Private companies that are developing clean economy products and services need various types of funding depending on the development stage. Grants, loans, or equity investments, for example, could be provided to companies to scale their efforts. These investments could be provided through the proposed intermediary fund at the regional or national level that has been capitalized by collective investment from foundations and corporations.

In addition to these entities that could receive assistance, other key partners may be involved in transactions to leverage investment. For example, strategic corporate investors are playing a pivotal role in developing clean technologies. Engaging large corporations with a strategic interest in clean technologies can be critical to supporting new startup companies and a regional cluster. These corporate strategics, such as traditional energy and utility companies, can be investors, partners in joint development agreements or to test new technologies, and provide startup companies access to a large customer base.

How will Clean Economy Solutions Work with Regions?

The CES collaborative network provides critical connective tissue enabling the regions to share best practices and work together to overcome barriers. Each region has its own assets and opportunities, and together they can accelerate the transition to a clean energy economy. Building on the demonstrated strengths of the investment ready regions currently engaged in the network, CES can launch an expanded network of economic developers engaged in the clean economy. In its next chapter, CES will support the network by:

- **Connecting regional clean economy leaders in a National Network of Investment-Ready Regions** to grow regional markets and share best practices, help gain greater visibility outside individual regions and attract more investors and clean economy economic development to regions;
- **Providing technical assistance to regions**, such as by providing strategic guidance on sector strategies, data analysis of the region, and compiling best practices on sectors and key issues;

- **Facilitating strategic sessions with peer thought leaders, investors, strategic corporations, and site recruiters** on advancing the national clean economy market; and
- **Identifying financing solutions for clean economy projects, companies and programs** that can be created and/or activated by investment-ready regions.

The proposed next phase effort intends to invest in regions and stimulate clean economy growth. It is proposed to be funded by national and regional private foundations and corporate giving and be led by a Board of Advisors through a national nonprofit intermediary organization. Initial discussions of the prospective “Clean Economy LISC” have been held with leaders from the McKnight Foundation, Ford Foundation, Rockefeller Foundation, and Boston Foundation, as well as past and current officials of the LISC program for neighborhood and housing development.

CES will further develop and refine these ideas with stakeholders in late 2014 and 2015.

Appendix A - Summary Outcomes from the Clean Economy Leadership Exchange

Hosted by Clean Economy Solutions
Pocantico Center of the Rockefeller Brothers Fund
June 9-11, 2014

Clean Economy Solutions hosted the [Clean Economy Leadership Exchange: Advancing Markets](#) and Investments, which included leaders from economic development and industry organizations, companies and clean economy investors from nine (9) metro-regions around the country. The 9 metro-regions at the round table included Austin, Boston, Cleveland, Denver, Los Angeles, Minneapolis-St. Paul, Oklahoma City, Research Triangle (NC) and Silicon Valley. These regions were identified as “investment-ready regions” that are leading their peers by aggressively pursuing intentional strategies for advancing the clean economy. Throughout the event, participants discussed challenges and opportunities to accelerate and promote innovative “bottom-up” strategies to grow clean economy markets and foster investments. The results of those discussions below outline key findings and lay a path forward for continuing to work together on this initiative.

[What makes your region a good location for clean economy investment?](#)

Investment-ready regions share a number of key attributes, though each region’s specific characteristics make them prime locations for different clean economy sectors or parts of the supply chain. By working together, regions can leverage these attributes to grow the overall clean economy market. Investment-ready region attributes include:

- **Foster a Culture of Entrepreneurship:** Many of these regions have a culture of risk taking and innovation that extends to the advanced energy and clean technology sectors. By fostering a startup culture with incubators, mentor and leadership networks, regions can help spur new technologies and companies.
- **Leverage Local Assets:** Regions take advantage of local assets such as natural assets (e.g. wind), universities and research laboratories, skilled workforce, investor networks, and existing industries and corporations. By taking stock of existing assets in and related to the clean economy, regions can better understand gaps and potential areas in which to grow.
- **Develop a Strategic Approach:** These regions are distinct in having a strategic approach to developing clean economy clusters. These approaches include creating company connections to support the sector, collaborating across public and private organizations, fostering

industry-led initiatives, and networking investors to provide a continuum of funding sources for all stages of company growth.

- **Attend to Both Market Demand and Supply:** Regions understand the need to create supportive environments to grow the demand for products while also creating the supply for local and outside markets. Strong private sector leadership, along with a supportive public sector and policies, can be important drivers for markets.

[Which types of funding models have been successful for clean economy markets?](#)

Companies and organizations in regions have successfully received funding from a number of sources. Venture capital and angel investment has been a key source for new companies, and strategic corporate investors are increasingly key players in helping grow later stage startup companies. Government financing in various forms has also been important, with tax credits, grants, rebates, and incentives or public entities that leverage private capital such as the Connecticut’s Green Bank and Ohio’s Third Frontier.

[Where have you experienced barriers in financing for clean economy markets?](#)

Regions’ biggest barrier is a general lack of awareness about the clean economy market from potential investors, including banks, private equity firms, and other private and public sources. Many advanced energy and clean technologies have high capital needs to get to commercial scale, and the funding model to get these companies through the “valley of death” in commercialization is unclear. In addition, some government sources of financing are not flexible enough given the dynamic nature of the market.

[What do you need most to grow clean economy investment in your region?](#)

To grow investment in regions, there needs to be awareness building among public and private stakeholders about financing needs and risks. The clean economy market needs new funding models and a more connected financing ecosystem to be able to access greater levels of capital for startups, commercialization, and projects. The market needs common investment strategies that are driven by the private sector, not just by legislation. In addition, there needs to be greater financial resources for intermediary organizations that help connect regional industry stakeholders and grow the cluster.

What can we do together to promote clean economy investment in our regions?

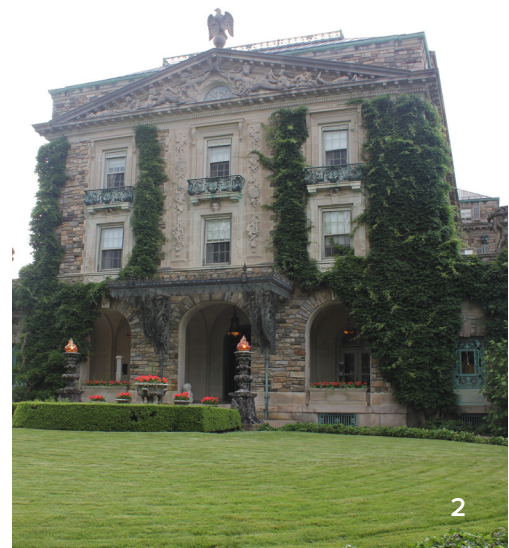
Regions can work together to leverage their successes and grow the overall clean economy market nationally and globally. Event participants identified four key ways in which they can work together:

- 1. Create a National Clean Economy Exchange:** This would be a national network of regional leaders and investors, which can provide a platform for ongoing collaboration, peer learning, and support for collective goals and projects.
- 2. Share Best Practices of Clean Economy Intermediaries:** Regions have been successful in various ways, and building an inventory of where and how regions have made progress in developing technologies, companies and organizations, and policies is needed.
- 3. Develop an Inventory of Clean Economy Financing Models:** Regions need a repository

of successful financing models and resources, as well as new and emerging models such as a green bank. In addition, regions want to develop shared metrics and models to grow capital.

- 4. Promote an Investors Roadmap to Clean Economy Investment-Ready Regions:** Regions could benefit from expanded education and awareness about the clean economy market among investors. The roadmap could include an overview of regions and the clean economy market as well as financing successes and barriers. It could be packaged as an online platform or seminar for stakeholders and investors across regions.

Clean Economy Solutions is looking forward to working with regional leaders on these ideas to help grow the clean economy market.



Clockwise:

1. Group at the June 2014 Clean Economy Leadership Exchange Pocantico Retreat
2. Kykuit, the Rockefeller Estate
3. John Melville of Collaborative Economics sorting ideas from the working session at the Pocantico Retreat
4. Working session at the June 2014 Clean Economy Leadership Exchange Pocantico Retreat

Attendees at the June 2014 Clean Economy Leadership Exchange Pocantico Retreat

Rebecca Bagley
President & CEO
NorTech
Cleveland, OH

Carter Bales
Founder and Managing Partner
New World Capital
New York City, NY

Jim Boyle
President and CEO
Sustainability Roundtable
Cambridge, MA

Morrow Cater
President
Cater Communications
San Francisco, CA

Diane Cherry
Environments Program Manager
Institute for Emerging Issues
Raleigh, NC

Dan Esty
Hillhouse Professor of
Environmental Law and Policy
Yale University
New Haven, CT

Dick Fleming
Chairman
Community Development Ventures Inc.
St. Louis, MO

Kurt Foreman
Executive VP of Economic Development
Greater Oklahoma City Chamber
Oklahoma City, OK

JoAnne Golden-Stewart
Director of Public Policy
Los Angeles County Economic
Development Corporation
Los Angeles, CA

Sarah Ham
Associate
DBL Investors
San Francisco, CA

Doug Henton
CEO
Collaborative Economics
San Mateo, CA

John King
Director of Clean Energy and Power
Technology
Austin Chamber
Austin, TX

Martin Kunz
AVP, Executive Underwriter,
Clean Technology
Chubb Group of Insurance Companies

Michael Langley
CEO
Greater MSP
Saint Paul, MN

Tim McRae
Energy Director
Silicon Valley Leadership Group
San Jose, CA

John Melville
President
Collaborative Economics
San Mateo, CA

Scott Minton
CNG Business Development Manager
OnCue Express
Oklahoma City, OK

Lee Anne Nance
Executive Vice President
Research Triangle Regional Partnership
Raleigh, NC

Michael Northrop
Program Director Sustainable
Development
Rockefeller Brothers Fund
New York City, NY

Andre Pettigrew
Executive Director
Clean Economy Solutions
Research Triangle, NC

Graham Richard
CEO
Advanced Energy Economy
San Francisco, CA

Andrea Ricaurte
Executive Director
CleanTX
Austin, TX

Jay Schabel
CEO
RES Polyflow
Cleveland, OH

Chris Shapard
Executive Director
Colorado Cleantech Industry Association
Golden, CO

Rena Steichen
Clean Economy Practice Manager
Collaborative Economics
San Mateo, CA

Mitch Tyson
Principal
Tyson Associates
Boston, MA

Silda Wall Spitzer
Partner
New World Capital
New York City, NY

Ed Williams
CEO
Novinda
Denver, CO

Appendix B – Nine Nodes and Growing

The following article, “[Nine Nodes and Growing: Economic developers are gearing up to compete in the \\$1.1 trillion clean economy marketplace](#),” was published by CES’s chairman Richard C.D. Fleming in Site Selection Magazine in November 2014.

While some headlines continue to present the climate change issue as a convenient red/blue political issue, a growing number of Fortune 500 CEOs, high-tech entrepreneurs, mayors, foundations, investors, and economic developers are dealing with this global and national environmental challenge as an unprecedented economic development opportunity.

This past weekend’s release in Copenhagen of the UN Intergovernmental Report on Climate Change underscores both the urgency of action and offers hope that policy and market responses can ultimately deal with the issue.

Not since the year 2000 focus on the biotech and life sciences industry cluster has an emerging economic development opportunity attracted such interest and creativity from the economic development community. At that time, the Brookings Institution documented over 60 regions’ pursuits of the plant and life sciences sector as a key element of area economic development strategies. Today, regional economic developers have identified the Clean Economy as a promising focus for economic and entrepreneurial development efforts at the local level. This recognition of the climate issue as both an environmental imperative and an economic development opportunity has emerged since 2008, when the Rockefeller Brothers Fund launched a national economic development initiative initially called Climate Prosperity, Inc. — ultimately becoming Clean Economy Solutions (CES).

Clean Economy Solutions brings together regional businesses, investors, entrepreneurs, economic development stakeholders, and markets with the objective of growing the advanced energy economy, helping these partners focus on real business transactions and practical economic development. This nonpartisan national civic initiative focused its initial efforts on demonstrating the direct connection between local economic development and dealing with the climate issue from a pragmatic environmental perspective through an initial five pilots — in Delaware; Denver, Colo.; Portland, Ore.; Silicon Valley and St. Louis, Mo. The several-year experience with these pilots now has led to expanding the effort to a broad cross-section of regions.

Already Here

Recently, CES convened a three-day Clean Economy Leadership Exchange for 30 leaders from economic and industry organizations, companies and clean economy investors at the Pocantico Hills Conference Center in New York, hosted by the Rockefeller Brothers Fund. The Exchange included leaders from nine metro regions joining forces to create the core of a national network to promote innovative “bottom-up” strategies to grow clean-economy markets and foster investments. The nine metro regions at the Pocantico roundtable included Austin, Boston, Cleveland, Denver, Los Angeles, Minneapolis-St. Paul, Oklahoma City, Research Triangle and Silicon Valley.

These Leadership Exchange participants were identified as “investment-ready regions” that are leading their peers by aggressively pursuing intentional strategies for advancing the Clean Economy. The retreat concluded that innovation in these and other regions can be accelerated by connecting and sharing efforts to grow the market for regions nationwide.

The Clean Economy is not an emerging market - it is here - with growth hubs across the country in diverse regions, including some of the most unlikely places. Through the work of Clean Economy Solutions, a number of additional US metro regions are being recognized as emerging leaders in this market, and are making choices and taking actions to better position themselves to be ideal locations for growing clean energy technology companies and industries.

Considering the pending national EPA carbon emission standards for coal-fired plants, long-term fossil fuel costs and the fact that the Clean Economy has been conservatively estimated to be a \$1.1-trillion global market, it is clearer than ever that there is an opportunity for economic development practitioners and investors to join together to secure the future of this promising industry cluster.

Chronicling the release of the past week’s UN Climate Change Report, CNN’s lead Sunday headline noted we need to “invest now or face ‘irreversible’ effects of climate change.”

Clean Economy Solutions aims to connect regional growth hubs and help them advance the Clean Economy through shared best practices and collaboration, as well as connecting businesses with customers and financiers. The Clean Economy includes advanced and renewable energy, as well as efficient technologies for transportation, buildings, water, food and recycling.

“Consumers are demanding cleaner forms of energy and the smart private investor is getting in now,” noted former McKinsey Director Carter Bales, now chairman and managing partner of private equity firm New World Capital Group, in addressing the Exchange.

“Around the country, there are ‘investment ready regions,’ as Clean Economy Solutions has identified, that are prepared to help accelerate the success of these new companies - investing in a skilled workforce and infrastructure, as well as connecting organizations and supply chains [to] support the success of Clean Economy businesses,” Bales continued. “The location of Clean Economy companies matters to their successful growth and development, creating an economic advantage for both the company and investor.”

Showing the Way

An example of Clean Economy market response? “Connecticut’s Green Bank initiatives spurred more than \$220 million of investment in deploying energy in communities across the state,” observed Dan Esty, professor of environmental law and policy at Yale University, former commissioner of energy for the State of Connecticut, and author of the book “Green To Gold: How Smart Companies Use Environmental Strategy to Innovate, Create Value, and Build Competitive Advantage.”

“For every \$1 of ratepayer green bank funds invested,” he said, “nearly \$10 was invested from private sources.” Connecticut’s Clean Energy Finance and Investment Authority (Green Bank), demonstrates how states and regions are leveraging new 21st century financial models to grow the clean economy. New York State announced \$800 million in financing deals last month. Connecticut and New York demonstrate that institutional capital is being attracted to the Clean Economy. “Metro regions across the country recognize the need for this collaborative national network as a means to grow their advanced-energy markets both regionally and globally,” said Rebecca Bagley, president and CEO of NorTech, a technology based economic development organization in Northeast Ohio with an advanced energy “hub” of more than 500 companies. “Our strength in numbers can leverage progress in clean economy investment, technology development, market supply and demand growth, innovation and job creation, as well as help inform public policy at both the state and national level.

Clean Economy Solutions is currently pursuing the potential for establishing a Clean Economy version of the highly successful Local Initiatives Support

Corporation (LISC), created back in the 1980s by the Ford Foundation. Such a national financial intermediary would provide financial and technical assistance to help bring local Clean Economy economic development efforts to scale and expand investment in the Clean Economy across the nation.

“The fact is these Clean Economy companies are growing at a robust rate -saving individuals and businesses money, which they spend on local goods and services, driving real economic growth,” said Doug Henton, chairman and CEO of Collaborative Economics, strategic advisors to Clean Economy Solutions. This collaborative network provides critical connective tissue enabling the regions to share best practices and work together to overcome barriers.

“This is the greatest underreported, sometimes misreported story of our time,” said Morrow Cater, president and CEO of Cater Communications, a strategic communications company that specializes in the energy sector. “The facts don’t change. Over time, fossil fuel prices will be volatile, but they are only going up. Who will win? Those who are diversifying to clean renewable energy.”

Each region has its own assets and opportunities, and together they can accelerate the transition to a clean energy economy. Building on the demonstrated strengths of the nine “investment ready regions” at the recent Pocantico Leadership Exchange, Clean Economy Solutions is launching an expanded network of economic developers engaged in the Clean Economy. In its next chapter, Clean Economy Solutions is now in the process of expanding this national network of “investment-ready regions” and will support the Network by:

- Connecting regional Clean Economy leaders in a National Network of Investment-Ready Regions to grow regional markets and share best practices, help gain greater visibility outside individual regions and attract more investors and clean economy economic development to regions;
- Facilitating strategic sessions with peer thought leaders, investors and site recruiters on advancing the national clean economy market; and
- Identifying financing solutions for clean economy projects, companies and programs that can be created and/or activated by investment-ready regions.

Appendix C – Individuals and Corporations Involved with Clean Economy Solutions

The People of Clean Economy Solutions

Board of Directors

Dick Fleming

Chairman of the Board
Community Development Ventures, Inc.,
Chairman & CEO

Andre Pettigrew

Executive Director
Clean Economy Solutions

Randall Kempner

Executive Director
Aspen Institutes' Network of
Development Entrepreneurs

John May

Managing Director, Stern Brothers
Investment Bankers

Collin O'Mara

Secretary of Natural Resources &
Environmental Control,
State of Delaware

Strategic Advisor

Doug Henton

Chairman & CEO
Collaborative Economics, Inc.

National Advisory Board

Rob Bennett

Executive Director
Portland Oregon Sustainability Institute

Peter Harkness

Founding Publisher & Editor
GOVERNING MAGAZINE

Neal Peirce

Nationally-syndicated Urban Affairs
Columnist Washington Post Writers Group
and Editor-in-Chief, Citiscope

Mary Jo Waits

Director
National Governors Association Best
Practices Council

Kim Walesh

Chief Strategy Officer
Office of the City Manager, San Jose, CA

Companies and institutions whose executives have generously advised and/or provided funding to Clean Economy Solutions:

Applied Materials

American Chamber of Commerce
Executives (ACCE)

American Council on Renewable
Energy (ACORE)

Biggins Lacey Shapiro & Company

CH2M HILL

Cicso Systems

CITI Group

CitiStates Group

Dignity Health

Greater Austin Chamber of
Commerce

IBM

Intel Corporation

International Economic Development
Council

KB Home

McKinstry

Metro Atlanta Chamber of
Commerce

Minneapolis/St. Paul Economic
Partnership

New World Capital Group

Next 10

NorTech

North Myrtle Beach Chamber of
Commerce

NRG Energy

Reznick Group

Rockefeller Brothers Fund

San Francisco Chamber of
Commerce

Santee Cooper

Schneider Electric USA

Space Coast Energy Consortium

St. Louis Regional Chamber &
Growth Association (RCGA)

Stern Brothers & Co

Wilson Sonsini Goodrich and Rosati

XCEL Energy

Participants in Pocantico Retreats

Below is a compilation of individuals and organizations that have been involved in Clean Economy Solutions' strategic working session retreats at the Pocantico Center of the Rockefeller Brothers Fund. Names are in alphabetical order and titles are from when the individual attended Pocantico.

Mike Aller

Executive Director
Space Coast Energy Consortium

Rebecca Bagley

President & CEO
NorTech

Carter Bales

Chairman and Managing Partner,
NewWorld Capital Group

Tracey Bosman

Managing Director, Biggins Lacey
Shapiro & Company, LLC

Jim Boyle

President and CEO
Boston Sustainability Roundtable

Stephanie Carnes

Managing Director
The Chesapeake Crescent Initiative

Morrow Cater

President
Cater Communications

Diane Cherry

Environments Program Manager
Institute for Emerging Issues

Tom Clark

Executive Vice President
Metro Denver EDC

Joseph Danko

Senior Vice President – Sustainability
CH2M HILL

Dan Esty

Hillhouse Professor of Environmental
Law and Policy
Yale University

David Eves

President & COO
Xcel Energy

Steve Falk

President and CEO
San Francisco Chamber of Commerce

Hanna Felleke

Corporate Community Investment
Manager - Business Civic Leadership
Center
U.S. Chamber

Matt Ferguson

Principal, Practice Leader
Reznick Group

Dick Fleming

President, Board of Trustees, Climate
Prosperity, Inc./Clean Economy Solutions
and Chairman & CEO, Community
Development Ventures, Inc., St. Louis

Mick Fleming

President
American Chamber of Commerce
Executives (ACCE)

Erin Flynn

Urban Development Director
Portland Development Commission

Kurt Foreman

Executive VP of Economic Development
Greater Oklahoma City Chamber

Carrie Freeman

Corporate Sustainability Strategist
Intel Corporation

JoAnne Golden-Stewart

Director of Public Policy
Los Angeles County Economic
Development Corporation

Larry Gotlieb

Vice President, Governmental Affairs
KB Home

Tracey Grose

Former VP and Director of Research &
Strategic Development
Collaborative Economics

Sarah Ham

Associate
DBL Investors

Nancy Hamilton

Director of Business Development
McKinstry

Doug Henton

Chairman & CEO
Collaborative Economics

Florence Hudson

Corporate Strategies Executive
IBM Corporation

Dr. Norman Jacknis

Director, IBSG Public Sector
Cisco Systems

Curtis Johnson

Board Member
Minneapolis-St.Paul Economic
Partnership

Rick Jones

Director - U.S. Public Sector Strategies
Cisco Systems

Marc Jordan

President and CEO
North Myrtle Beach Chamber

Mike Kamerlander

Director of Expansion and Retention
Austin Chamber of Commerce

David Karpinski

Vice President
NorTech and Greater Cleveland
Chamber

John King

Director of Clean Energy and Power
Technology
Austin Chamber

Katie Kirkpatrick

Vice President, Environmental Affairs
Metro Atlanta Chamber

Kelly Krpata

Director, Climate Prosperity Council
Joint Venture Silicon Valley

Martin Kunz

AVP, Executive Underwriter, Clean Technology
Chubb Group of Insurance Companies

Michael Langley

CEO
Greater MSP

John May

Managing Director
Stern Brothers & Co. Investment Bankers

Stephanie McClellan

Policy Advisor for Clean Energy Economy
State of Delaware

Taite McDonald

Senior Advisor Energy Technology
Government Initiatives
Wilson Sonsini Goodrich & Rosati

David McGinn
President and CEO
American Council on Renewable Energy

Tim McRae
Energy Director
Silicon Valley Leadership Group

John Melville
President & COO
Collaborative Economics

Scott Minton
CNG Business Development Manager
OnCue Express

Drew Murphy
President Northeast Region
NRG Energy

Lee Anne Nance
Executive Vice President
Research Triangle Regional Partnership

Aaron Nelson
President & CEO
Chapel Hill-Carrboro Chamber of
Commerce

Michael Northrop
Program Director – Sustainable
Development
Rockefeller Brothers Fund

Noel Perry
Founder
Next 10

Andre Pettigrew
Executive Director
Climate Prosperity, Inc./Clean Economy
Solutions

John Porter
President
Clean Footprint, LLC, Chairman Space
Coast Energy Consortium

Pike Powers
Director
Duff and Phelps Investment Bankers

Cassandra Quaintance
Energy Efficiency Program Manager
Schneider Electric

Graham Richard
CEO
Advanced Energy Economy

Andrea Ricaurte
Executive Director
CleanTX

L. Wade Rose
Board Chairman
San Francisco Chamber of Commerce

Jay Schabel
CEO
RES Polyflow

Bruce Schlein
Vice President of Environmental Affairs
Citi

Eric Schneider
Senior Director of Energy and
Environment
St. Louis RCGA

Christine Shapard
Executive Director
Colorado Cleantech Industry Association

Jane Snowden
Senior Manager, Industry Solutions and
Emerging Business Department
IBM Corporation

Stephen Spivey
Manager of Renewable Energy
Santee Cooper

Renae Steichen
Clean Economy Practice Manager
Collaborative Economics

Mitch Tyson
Principal
Tyson Associates

Mark Walker
Executive Director
Applied Materials' Foundation

Silda Wall Spitzer
Partner
NewWorld Capital

Harrison Wellford
Chairman
Wellford Energy Group

Ed Williams
CEO
Novinda

Pat Wilson
Managing Member
Wilson Renewable Energy Consulting
Services



www.cleaneconomysolutions.org