



The St. Louis Greenprint 2012

An Action Plan for Growing
our Region's Green Economy

December 2011



R·C·G·A

St. Louis Regional Chamber
& Growth Association

Executive Summary

The St. Louis Greenprint 2012 (Greenprint) is an action plan to help grow the St. Louis regional green economy. Throughout 2011, the St. Louis Regional Chamber and Growth Association (RCGA) gathered with working teams comprised of business, civic, and institutional leaders to plot a path toward green economic growth. Through meetings and workshops, the RCGA and its working teams developed a set of long-term objectives and a series of near-term initiatives with concrete action steps to help development of the region's green economy.



The Greenprint's objectives all advance the overarching vision in the recently adopted Regional Economic Development Strategy for the region to be consistently ranked among the top 10 of the 20 largest U.S. metropolitan areas on indicators of regional vitality, economic health, and the creation of community wealth.

This Greenprint represents the first steps in an ongoing process for developing the St. Louis region as a national and global leader of sustainable companies, products and services, and workforce. As these initiatives and action steps are implemented in 2012, Greenprint contributors will also work on establishing baseline metrics and measurements to evaluate the success of the Greenprint initiatives. As the Greenprint moves beyond 2012, the project's focus will expand to pursue additional long-term activities that build on the framework developed in the plan's first year. This is just the beginning. We envision that the Greenprint will be an evolving process that continues to shape St. Louis' green economic growth well into the future.

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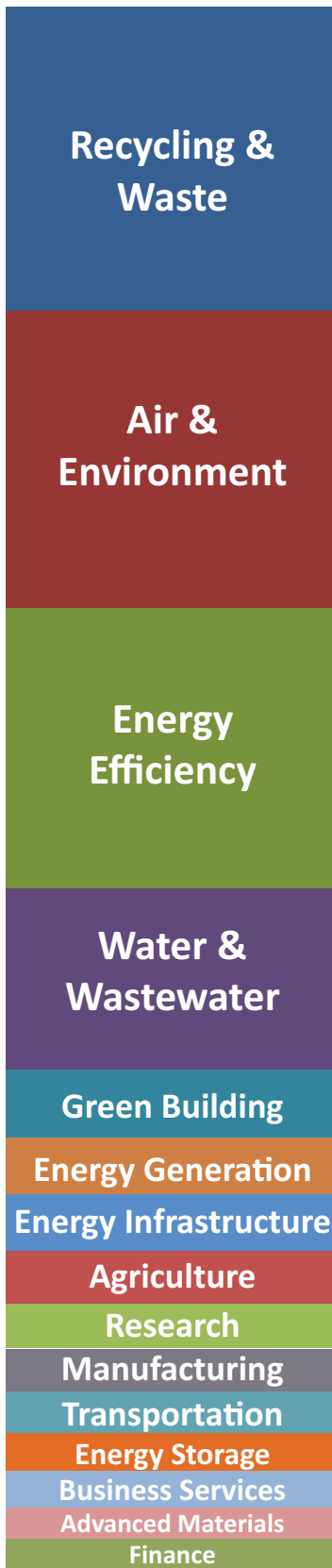
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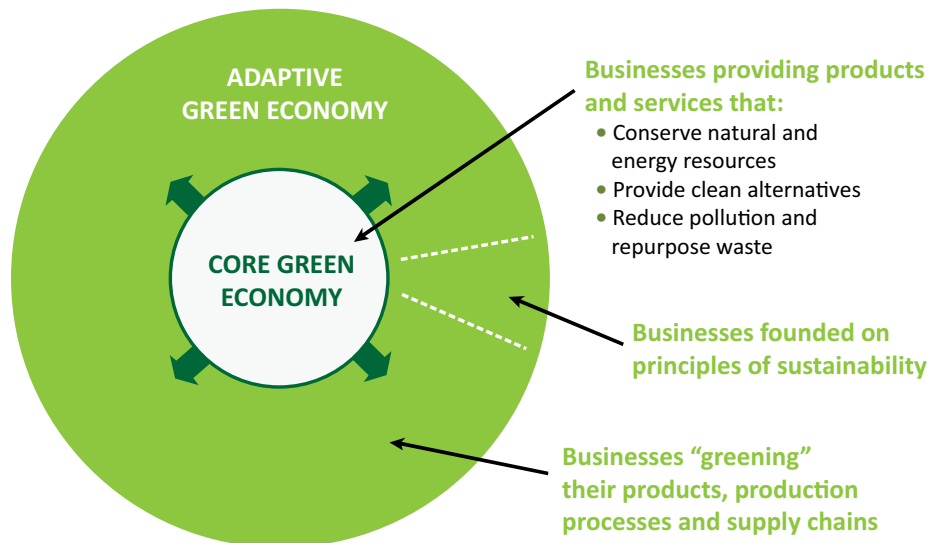
“Core Green Economy” Market Sectors*



*Size of respective market sectors in the chart corresponds to the proportion of jobs in each sector.¹

What is the green economy?

Green companies and institutions fall into two broad categories of the economy: the core and the adaptive. The **“core green economy”** contains companies and institutions providing products and services that conserve resources, provide clean alternatives, reduce pollution, and repurpose waste. These companies form the green marketplace by basing their business models on the above concepts and supplying companies and institutions in the **“adaptive green economy.”** The adaptive green economy encompasses companies and institutions that undertake serious efforts to green their products, processes, and supply chains. These companies and institutions may not produce products or services that allow other companies to green themselves, but have adopted a philosophy that green operations are good for business and good for the future. Adaptive green companies and institutions drive demand in the core green economy. The chart below provides a visual representation of the green economy:



Green Growth Potential

The St. Louis Green Economy Profile, a study commissioned by the RCGA in 2010, estimated that the St. Louis region had about 9,000 jobs in the core green economy, based on available data¹. Employment in the regional core green economy grew by 54 percent between 1995 and 2009, while total regional job growth in that same period was only four percent. Additionally, St. Louis has a strong base of green jobs and business assets from which to grow, with about 79 percent of its core green economy jobs concentrated in four sectors: recycling and waste, air and environment, water and wastewater, and energy efficiency. The Greenprint will leverage these existing assets into its action steps to help create the best climate for growth.

¹ St. Louis Green Economy Profile. Prepared by Collaborative Economics, Inc.. May 25, 2010. www.stlrcga.org

How was the Greenprint Developed?

Over the course of 2011, the RCGA engaged business, government, education, and civic leaders for the purpose of developing initiatives that advance the green economy. From July through December, representatives from more than 50 companies, universities, government entities, labor institutions, and non-profits gathered to determine the most effective strategies for green economic growth. **Three key components of the green economy were addressed: the market for green products and services, innovation and entrepreneurial growth, and a green workforce.**

With this emphasis in mind, three working teams were created to focus on the components of an effective green economy in the St. Louis region, each with distinct objectives: **Green Marketplace** to accelerate the market for green products and services, **Green Innovation** to spur entrepreneurial growth and innovation, and **Green Talent** to strengthen the region's workforce for green companies and institutions.

With the aid of **Collaborative Economics, Inc.**, a national consulting firm that has led similar Greenprint processes in three other pilot regions in the U.S., the RCGA held meetings with its working team members. Contributors in each working team were asked to discuss and reach consensus on Greenprint objectives and metrics, identify initiatives to meet the objectives, develop a series of action steps to support each initiative, and make commitments to help move the action steps forward. This Greenprint captures the collaborative efforts of a broad cross section of St. Louis area business and institutional leaders who are committed to laying the groundwork for a long-term process to foster green economic growth.

St. Louis is the fourth pilot region to develop a regional Greenprint, following Portland, Silicon Valley, and Denver. The St. Louis Greenprint is unique from the others in that this region has a very different business culture and energy mix than the other pilot regions, thus allowing this Greenprint to serve as a potential model for other Midwestern regions. The six-month process of developing Greenprint objectives, initiatives, and action steps is illustrated below:

GREENPRINT PROCESS

REACH CONSENSUS ON OBJECTIVES AND METRICS



AGREE UPON INITIATIVES AND ACTION STEPS



EXECUTE INITIATIVES AND ACTION STEPS



The Greenprint is born from the Climate Prosperity Project — a national initiative begun by the Rockefeller Brothers Fund in 2009. The Climate Prosperity Project is a national effort advancing the concept that innovation, efficiency, and conservation in the use and reuse of resources can increase jobs, incomes, productivity, and the competitiveness of a region. The Project identified four initial pilot regions to work with in developing a model for Climate Prosperity growth nationwide: St. Louis; Silicon Valley/San Jose; Denver; and Portland. For more information on the Climate Prosperity Project, visit, www.climateprosperityinc.org.

Greenprint 2012 Contributing



Tracey Grose of Collaborative Economics, Inc. leads discussion for the Green Innovation working team.



John Melville of Collaborative Economics, Inc. leads discussion for the Green Marketplace working team.



Companies and Institutions¹



André Pettigrew of Climate Prosperity Project, Inc. addresses the Greenprint working teams on November 9th as Doug Henton of Collaborative Economics, Inc. looks on.



What are the Greenprint's Objectives?

The Greenprint contributors settled on seven clear objectives, identified in the table below. These objectives address a wide range of green economic development issues. Developing programs aimed at directly meeting these objectives represents a top-to-bottom development strategy, targeting everything from changing the way companies do business, to educating college students on the skills they need to fill green jobs in the region. These objectives all advance the RCGA's overarching vision for the region to be consistently ranked among the top 10 of the 20 largest U.S. metropolitan areas on indicators of regional vitality, economic health, and the creation of community wealth.

Each objective outlined below addresses a specific step in the path toward green economic development. The objectives were identified by the Greenprint working teams and offer the best framework with which to move forward. The final objectives target all facets of the green economy, from large advanced technology firms, to small companies and non-profits, to students. Focusing on a broad swath of the economy enables the Greenprint objectives and corresponding initiatives to achieve the widest reach.

GREENPRINT OBJECTIVES

- **Develop the region's Sustainable Technologies Cluster, with emphasis on advanced energy technologies and sustainable building design and materials**
- **Increase the depth and breadth of regional companies and institutions adopting sustainable business practices**
- **Increase the regional supply and demand for green products and services and increase green exports**
- **Spur entrepreneurial growth and innovation in green products and services within the region**
- **Strengthen the regional workforce for the emerging green economy**
- **Restage the regional "green brand"**
- **Enhance livability through regional sustainability attributes**

How will we measure the Greenprint's success?

One of the primary tasks for the Greenprint working teams was to determine how to measure whether or not Greenprint programs and initiatives achieve success. After convening throughout 2011, the Greenprint contributors settled on the metrics below. Each metric will be applied to the appropriate initiatives as they are implemented over time, and measured against baselines to be established in 2012. These metrics will help the Greenprint contributors understand which initiatives are leading St. Louis toward green economic growth and which initiatives require further development or support. **These overall Greenprint metrics represent a long-term framework for evaluating the plan's success and should be considered in the broader, long-term economic context.**

The Greenprint initiatives are the first 2012 steps of a long-term plan to impact the metrics listed below:

- Number of companies and institutions adopting increasingly sustainable business practices
- Number and average wage of green jobs
- Number and economic value of green business establishments
- Number of requests for proposals/visits from qualified "green" site location consultants (i.e., increase in the economic development "pipeline")
- Number of companies and institutions achieving third-party certification (Energy Star, LEED, ICLEI Star Community, Sierra Club Cool Cities, EPA Climate Leaders, EPA Green Power Partners, etc.)
- Number and square footage of certified energy-efficient buildings
- Amount of financial support for regional green start-ups and depth and breadth of local green investors
- Number of students and professionals with degrees and certificates related to green companies and positions
- Success rate of job placements, locally and nationally, of graduates from regional green curriculum programs

**2012 GREENPRINT INITIATIVES
AND ACTION STEPS**

Initiative I: Developing the Region's Sustainable Technologies Cluster

One of the RCGA's primary functions is to strengthen the St. Louis regional economy by attracting new business opportunities. There is a quickly developing clean technology business market across the country that can be tapped to draw new regional offices or new operations to St. Louis. Effective marketing materials that compellingly describe the region's capabilities, strengths, and growth potential will result in more outside inquiries from interested establishments and more site selection visits to St. Louis. A Sustainable Technologies Leadership Council will provide an organizational structure made up of key leaders from advanced energy and sustainable building design and materials companies in order to provide direction and expertise on developing the Cluster.

Action Steps

- **Develop business recruitment tools for the Sustainable Technologies Cluster to reach national and international audiences**
- **Leverage recent recruitment success to attract supplier networks and research operations to the region**
- **Organize familiarization tours for national and local economic development professionals and site selectors to visit St. Louis green economy assets**
- **Pursue international recruitment opportunities and foreign direct investment**
- **Convene business leaders to serve as members of the Sustainable Technologies Leadership Council. The Council will:**
 - **Articulate industry-specific opportunities and barriers**
 - **Build a broad and deep knowledge about companies in this cluster**
 - **Advise the RCGA's public policy and talent-related initiatives in order to enrich the business climate for the Cluster**



Emerald Automotive, a British Company, is planning to build a \$175 million assembly plant in Hazelwood, where it will assemble its range-extended hybrid-electric delivery vans. The St. Louis region competed against 25 other regions to recruit Emerald. The vans that will be produced at Emerald's plant will produce 80 percent fewer emissions than comparable fossil-fueled vehicles, will achieve 138 mpg over the first 125 miles, and will have a 463 mile range. Emerald Automotive is a hallmark example of the types of innovative companies that St. Louis is perfectly suited to host. Since Emerald chose to site its facility in Hazelwood, the region has received many other inquiries from the clean-tech industry, demonstrating that our region is on the radar of green companies looking to set up new operations.

ST. LOUIS GREEN BUSINESS CHALLENGE

In 2011, nearly 70 companies and institutions completed the RCGA's St. Louis Green Business Challenge. Organizations ranged from sports teams to non-profit groups to some of the region's largest companies. Some of the Challenge efforts included creating internal "Green Teams," developing corporate policies around sustainability, and energy reduction planning. The RCGA engages the Missouri Botanical Garden's EarthWays Center as a resource advisor for Challenge participants. For more information on the Green Business Challenge and to learn about the accomplishments and innovations of the class of 2011, go to www.stlouisgreenchallenge.com.

Initiative II: Spreading Sustainable Business Practices

This initiative will expand the RCGA's St. Louis Green Business Challenge, and encourage participation in the Global Reporting Initiative (GRI). The Green Business Challenge provides an opportunity for regional companies and institutions to showcase their advances in technology, energy efficiency, and waste reduction. Participants have the potential to introduce improvements in their processes and lower costs from waste disposal, energy use, and water conservation. Developing green business practices can give companies a competitive edge because they can focus efforts and resources elsewhere instead of energy and waste. The GRI seeks to mainstream disclosure on environmental, social, and governance by providing a framework through which to report organizational efforts. Participants in the GRI can use the reporting framework to demonstrate commitments to sustainable business development and track improvements over time.

Action Steps

- Expand the Green Business Challenge to reach substantially more regional companies and institutions
- Encourage Green Business Challenge participants to locally source products and services for their Challenge efforts
- Partner with national and local organizations to hold a Global Reporting Initiative Midwest Conference and encourage regional companies and institutions to participate

Initiative II: Spreading Sustainable Business Practices (continued)

Below is a list of participating companies and institutions that completed the St. Louis Green Business Challenge in 2011:



ST. LOUIS
GREEN BUSINESS
CHALLENGE

The St. Louis Regional Chamber and Growth Association

St. Louis Green Business Challenge

Class of 2011



R.C.G.A.
St. Louis Regional Chamber
& Growth Association

<p>The Advertisers Printing Company Alberici Ameren American Lung Association America's Central Port Arcturis Armstrong Teasdale LLP The Boeing Company St. Louis Brown Shoe Company Bryan Cave LLP Burns & McDonnell Cannon Design Christner Citi Clayco Color Art Integrated Interiors Commerce Bank Covidien DRS Sustainment Systems Inc. Datotel Deloitte The Doe Run Company EDC of St. Charles County Express Scripts Inc. Federal Reserve Bank of St. Louis Geotechnology Inc. Global Products Inc. Graybar HOK Habitat for Humanity St. Louis Holland Construction Services Inc Jacobs Jones Lang LaSalle KPMG Laclede Gas Company Mackey Mitchell Architects</p>	<p>Maritz Markwort Sporting Goods Company McCormack Baron Companies McKendree University Metro Microgrid Energy Missouri Botanical Garden Missouri History Museum Monsanto The Moonrise Hotel Novus International Inc. Partnership for Downtown St. Louis SCI Engineering Inc. SWT Design Saint Louis University Saint Louis Zoo Save-A-Lot Food Stores Schnuck Markets Inc. Sigma-Aldrich Southwestern Illinois College Special School District of St. Louis County St. Louis Cardinals St. Louis County St. Louis Office for Developmental Disability Resources St. Louis RCGA Stan Gellman Graphic Design Inc. SustainEdge Tarlton Thompson Coburn LLP UMB Bank The Vandiver Group Walsh & Associates Wells Fargo Advisors</p>
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The St. Louis Green Business Challenge By the Numbers

In 2011, 69 companies and institutions completed the St. Louis Green Business Challenge, a nearly 20 percent increase over the inaugural class of 2010. Of the companies and institutions that completed the Challenge:

- 85 have participated in the Challenge for both years, representing more than 100,000 employees collectively
- More than 75 percent completed a written set of sustainability guidelines and distributed it to all employees
- Nearly two-thirds adopted a green purchasing policy to procure green products when feasible
- 55 supported alternative modes of transportation by providing transit passes, participating in Ridefinders or WeCar, or providing bike racks for their employees
- More than half pledged to reduce waste by 25 percent
- 35 pledged energy reduction of more than 10 percent
- 24 used sustainable landscaping at their worksites
- 11 installed on-site renewables to supplement their energy consumption.



HOK, an architectural firm headquartered in St. Louis, has conceptualized the first market-rate, net-zero emissions commercial building in St. Louis. With significant weather extremes, cheap electricity, and a carbon-intensive energy mix, designing net-zero buildings is difficult in most Midwestern cities, but HOK rose to the challenge with **Net Zero Court**. Complete with passive solar design, a large solar PV array, and other state-of-the-art features, Net Zero Court represents the important green building work already being done in St. Louis.

Initiative III: Accelerating the Market for Green Products and Services

In 2012, Greenprint contributors will develop a St. Louis High Performance Building Initiative that will not only grow the green product and service markets in St. Louis, but will also foster a business culture focused on creating innovative working environments. Green buildings provide opportunities for green jobs like LEED AP architects, energy auditors, insulation technicians, skilled carpenters, landscape architects, and many more. Creating a larger market for green buildings in the region will also help reduce the cost of those buildings, generating savings for companies beyond those already achieved from improved energy efficiency. Green buildings also provide healthier spaces in which to work, making it more likely that St. Louis can retain a talented workforce. Additionally, a procurement network among companies that emphasizes local sourcing will help concentrate green business purchases in the region and ensure that St. Louis green companies in particular benefit from regional green economic growth.

Action Steps

- **Launch the St. Louis High Performance Building Initiative in partnership with the U.S. Green Building Council-Missouri Gateway Chapter and other real estate and building management professional organizations**
 - **Develop a High Performance Building Academy that offers educational and training opportunities for business leaders, architects, real estate professionals, and property managers**
 - **Develop a Web-based clearinghouse that brings together all local green building incentives (i.e., PACE, energy efficiency loans, utility incentives), assets, and resources**
- **Pursue a green products and services procurement network among RCGA member organizations and encourage local purchasing**

Initiative IV: Building a Green Innovation Network

An important piece of developing a green economy is to stimulate entrepreneurial activity. A robust effort to showcase and support local start-ups in the green economy will help to more quickly diffuse knowledge and awareness among the business community. This initiative will provide a foundation for future innovation and economic growth by fostering an innovation “eco-system” with stakeholders that want to strengthen relationships and innovation plans. Intersecting people involved with innovative companies and concepts and uncovering their common interests will stimulate new ideas and collaborative relationships that spur innovation. Action steps in this initiative will help to identify and promote a wide array of green innovation around the region through business challenges, a green innovation network, marketing materials, and events.

Action Steps

- **Develop an inventory of regional and national innovation challenges and encourage St. Louis entrepreneurs and companies to participate**
- **Hold a Green Innovation Showcase with area entrepreneurial support organizations to promote challenges and support available to local companies and entrepreneurs**
- **Build an “ecosystem of support” for green economy entrepreneurs and start-ups by establishing a network of universities, incubators, mentors, funders, and professional services firms that come together for events and programs**
- **Develop materials for internal and external communication in the region touting St. Louis’ innovation successes**



The Clean Energy Trust organizes the Midwest Clean Energy Challenge, which awards a \$100,000 grand prize to the winner. The Clean Energy Trust was created to accelerate the development of Midwest clean energy companies by connecting entrepreneurs, researchers, and early stage companies with the expertise and capital needed to become sustainable. The vision of the Greenprint is to encourage St. Louis companies and entrepreneurs to compete in more regional and national innovation competitions to draw more attention to the work being done here. The Skandalaris Center at Washington University in St. Louis has teamed up with the Clean Energy Trust to create a \$10,000 prize for winners from Missouri. Teams from Southwestern Illinois are also eligible for a \$10,000 state prize.

STL HIGHER ED SUSTAINABILITY CONSORTIUM

The mission of the St. Louis Regional Higher Education Sustainability Consortium is to connect the strengths, resources, and knowledge of St. Louis area universities and colleges, to advance collective sustainable initiatives that cultivate innovation, to eliminate non-productive competition, and to create a network that is more than the sum of its parts. The Consortium has been led by St. Louis University, Washington University in St. Louis, Lewis and Clark Community College, Southwestern Illinois College, Maryville University, and the St. Louis Community College, with organizational support from the Missouri Botanical Garden EarthWays Center and HOK.

Initiative V: Establishing a Higher Education Sustainability Collaborative

Fostering economic development around a green economy will require a regional workforce that has the proper skills to be qualified for new green jobs. Without a strong, well-educated green talent pool, green economic development will be limited. Leveraging the St. Louis region's exemplary academic institutions and connecting them with companies and labor organizations to educate and train entrants into the workforce will go a long way toward creating a strong green talent base. This initiative will foster easier access to information about green education and training opportunities, and will generate collaboration among potential green job creators and the institutions that will educate and train the local workforce.

Action Steps

- **Launch a Higher Education Sustainability Collaborative, bringing the existing Higher Education Sustainability Consortium more closely together with companies and labor organizations**
- **Survey area employers and develop a checklist of core skills they currently have or need to fill green jobs**
- **Publish "green career maps" of green educational and training opportunities**
- **Redouble efforts on StLouisGreenJobs.com by expanding available information and exploring relationships to bring in more participating employers**

Beyond the 2012 Greenprint

The St. Louis Greenprint 2012 is just the beginning of a long-term, collaborative effort among the business, institutional, and civic communities to accelerate existing markets and develop new ones to grow the region's economy in clean technology, energy efficiency, and green innovation. The steps outlined in the Greenprint represent the region's coordinated effort to grow green sectors of the economy. The Greenprint is a framework on which the green economy can continue to grow well into the future. As these first steps are initiated, the RCGA and stakeholders in the green economy will continually seek new opportunities and evaluate ideas for new initiatives.

Beyond the 2012 initiatives and action steps identified in this report, below are some additional steps that are under consideration for the future:

- **Establish Green Investment For Talent (GIFT) fund with contributions from area green companies**
- **Launch Project Re-generation, focused on waste repurposing and recycling programs, and urban revitalization through Transit-Oriented Design and Green Infrastructure**
- **Educate policymakers on the private sector benefits of various policy tools to assist green building design and clean-technology companies (PACE, Energy Efficiency Loans, Building Codes, Renewable Energy Standards)**
- **Motivate sustainability executives within multi-site companies to help regional green companies reach markets outside St. Louis**
- **Organize mentoring and consulting services to St. Louis Green Business Challenge participants to advance their sustainability initiatives**
- **Offer local "green business" certification programs for graduates of the St. Louis Green Business Challenge**
- **Develop local Global Reporting Initiative seminars and mentorship programs between GRI-reporting companies and interested St. Louis-based companies**
- **Develop economic development strategies to foster green economy entrepreneurship, capital formation, and the commercialization of regional green innovation**
- **Create specialized certificates for specific green job tasks**
- **Develop common sustainability curriculum for elementary, secondary, and higher education institutions in the St. Louis region**

*This is just the beginning.
We envision that the
Greenprint will be
an evolving process that
continues to shape
St. Louis' green economic
growth well into the future.*

ST. LOUIS GREENPRINT 2012 CONTRIBUTORS

The RCGA would like to thank the individuals listed on the following page for their work in developing the St. Louis Greenprint 2012. Each person listed took time out of their busy schedules to lend their expertise and vision to this effort. The RCGA is grateful for every contributor's ideas, advice, and input.

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THE ST. LOUIS GREEN BUSINESS ASSET INVENTORY

The St. Louis Green Business Asset Inventory is a sampling of regional companies that make up the “core” and “adaptive” green economy in key green industry sectors in St. Louis. The companies highlighted in the inventory have either based their business models on supplying green products and services to the market, or have taken steps to green their business practices. St. Louis has a wide array of green business assets, from small start-ups to large biotechnology and agricultural firms. The St. Louis Green Business Asset Inventory is not a comprehensive list, but one that will evolve over time as more green companies emerge. Please visit www.stlrcga.org/greenprint.xml for the most recently updated inventory.

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Home to some of the top architects, designers, contractors, and laborers in the world, green building is one of St. Louis' greatest industry strengths. The region also boasts some of the most innovative green buildings in the country.



GREEN BUILDING



According to the U.S. Green Building Council-Missouri Gateway Chapter, 10 years ago there was just one LEED certified building in the St. Louis region. Today, the region boasts over 80 commercial and over 50 residential LEED certified buildings.



400 Locust

The 411

720 Olive St.

Shaw Park Plaza

Centene Plaza



HOK is a world leader in architecture and planning. HOK believes that successful urban communities are more than a response to the basic requirements of food, shelter, and security. The HOK Planning Group focuses on the spaces in between the buildings to harmonize architecture, infrastructure, and open space. This creates urban experiences that support social and physical needs.



HOK's Net Zero Court commercial building concept is designed to have no net positive emissions



ARCTURIS provides planning, landscape architecture, urban design, architecture, interior design, graphic design, facilities support services, and technology solutions services for major corporations, financial institutions, public facilities, communities, higher education, healthcare, and the hospitality industry.



CHRISTNER is an architectural firm recognized for strategic planning and collaborative design for healthcare, education, and corporate clients.

HOLLAND CONSTRUCTION SERVICES is a member of the U.S. Green Building Council and has completed LEED certified projects throughout the St. Louis region.

KOZENY-WAGNER is a full-service construction firm with expertise in sustainable design and LEED construction with LEED Accredited Professionals (AP's) on staff.

MCCARTHY BUILDERS is one of the nation's top 20 green construction companies and requires in-house green training for its employees, in addition to its 400+ LEED AP's company-wide.

CONTRACTORS GO GREEN

TARLTON is one of the country's top 400 contractors, specializing in pre-construction and construction services with an emphasis on sustainable construction and sustainability practices during projects. Tarlton's headquarters was the first LEED Gold office building in the City of St. Louis.



ALBERICI is a contracting and construction company housed in one of the world's most energy efficient buildings. Its subsidiary, Vertegy, has a proven track record of attaining certification for its buildings from the following rating systems: the U.S. Green Building Council's LEED program, the Green Building Initiative's Green Globes, and the National Association of Home Builders' Model Green Homes. Their headquarters was the first LEED Platinum building in Missouri.

CLAYCO is a full service contractor and construction company that has LEED qualifications and environmentally conscious business practices.

BSI is a contracting and construction company that has built LEED certified buildings in St. Louis and maintains LEED certified professionals on staff to continue offering green building services to clients.

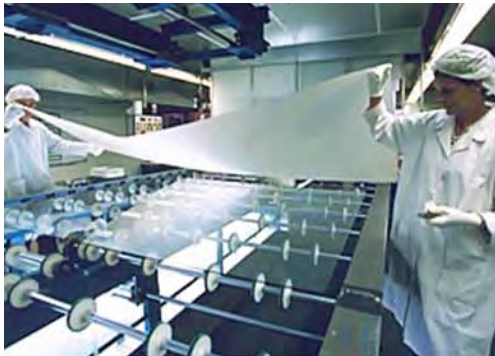
PARIC is a leading general contractor, construction manager, and design-build firm. Paric built the Nidus Center, the first LEED Silver building in Missouri.



ENERGY EFFICIENCY & INNOVATION



ST. LOUIS MAKES INNOVATIVE PRODUCTS FOR ALTERNATIVE ENERGY APPLICATIONS



SOLUTIA, headquartered in St. Louis, has committed to a 25 percent energy intensity reduction from 2009 levels in several worldwide plant operations by 2020 as part of the U.S. Department of Energy's Save Energy Now program. Since 2009, Solutia has already achieved a 14 percent reduction in energy intensity. Additionally, Solutia provides innovative, essential products to the solar and energy markets. These products include polyvinyl butyral interlayers (PVB) and ethylene vinyl acetate (EVA) encapsulants that increase durability and functionality in solar modules, high-performance fluids that help concentrated solar power plants improve energy outputs, conductive and reflective films that improve performance and flexibility in solar modules, and applied window films that improve energy efficiency in residential and commercial spaces.

TALISEN TECHNOLOGIES provides information technology solutions that monitor thermostats, heating, ventilation and cooling systems, electric and gas meters, and greenhouse gases for buildings. Talisen's Team Carbon helps client organizations and governmental bodies think through scenarios, develop and address key strategies, take first steps to reduce energy "spend and burn", improve distribution network productivity, lower greenhouse gas emissions, reduce their environmental footprints, and prepare for the future.

EMERSON CLIMATE TECHNOLOGIES helps electric utilities manage peak demand, and enables customers to reduce energy consumption and participate in electric utility demand response programs.

GRAYBAR helps building owners improve energy efficiency while guiding them through technology improvements that positively impact their bottom line. As a trusted advisor in building control, energy management and networking solutions, as well as emerging technologies such as electric vehicle charging stations and renewable energy, Graybar delivers the products and services building owners need today, with the innovation they can build on tomorrow.



HALCYON SHADES produces high-tech solar "smart" window shades that preserve natural daylight and reduce the need for artificial lighting, while also reducing energy consumption for air conditioning by as much as 15 percent, regardless of building size. Halcyon shades are deep-dyed in attractive colors to filter glare by 97 percent while also filtering UV radiation almost entirely (98 percent). The shades are impregnated by a fine layer of aluminum that reflects up to 80 percent of the heat-generating infrared light back out the window.

ENERGY PRO-USA implements energy conservation and productivity improvements inside industrial manufacturing facilities.

NORDYNE, INC. provides innovative, quality indoor comfort systems for the add-on, replacement, and new construction/builder markets world-wide.

CONTROL TECHNOLOGY & SOLUTIONS specializes in high quality solutions and services (including geothermal, solar, and wind systems) that are custom-designed to meet the unique needs of each customer.

TERAVISTA SYSTEMS developed CarbonTrax™, which allows business owners to create carbon credits annually from their operations. It also allows property owners and operations to validate their carbon savings in order to be purchased by an aggregator or an exchange.

ZOLTEK manufactures carbon fiber products used in alternative energy and energy efficiency applications. Zoltek products help increase the energy output of wind turbines, create more fuel efficient vehicles, and lift other industries to higher levels of performance.

ENERGY GENERATION



The St. Louis region has a history of producing cost-effective energy. Now St. Louis is leading the research and development of alternative energy like solar, wind, and biofuels. St. Louis is the perfect place to research an energy option and to grow a company.



BOEING DEFENSE, SPACE & SECURITY is home to Boeing Energy, a division that develops innovative solutions to increase the efficiency and security of local, regional, and national energy systems. Boeing Energy teams with major U.S. utilities to demonstrate technologies that increase grid reliability,

reduce system demands and costs, and improve energy efficiency. In addition, Boeing Defense is developing new aircraft with advanced aerodynamics, structures, materials, and energy-efficient operations such as the hydrogen-powered Phantom Eye and the ultra-long endurance, solar electric-powered SolarEagle.



BRIGHTERGY SOLAR SOLUTIONS

installs solar power for commercial and residential buildings. The company also offers expertise in wind energy and energy efficiency solutions.

THE DOE RUN COMPANY is developing a waste-to-energy power plant in conjunction with their new lead metal processing plant in Herculaneum. This biomass plant will provide power to the wet electro-chemical lead process and generate nearly zero lead air and sulfur dioxide emissions.

CONSORTIUM FOR CLEAN COAL UTILIZATION

Washington University in St. Louis has dedicated more than \$60 million in financial resources during the past year to advance education and research related to energy, environment, and sustainability. The new consortium will receive additional support with research partnership commitments of \$5 million each from Arch Coal and Peabody Energy and \$2 million from Ameren, to be paid over five years. The Consortium's goal is to bring university researchers, industries, foundations, and government organizations together to research clean coal technology, making St. Louis the nation's center for clean coal research.



NOVEL TECHNOLOGIES



ELECTROCHAEA, LLC, a portfolio company of Nidus Investment Partners, is developing a novel technology to convert stranded electric power into methane, the principal component of natural gas.

FREIEZO is a St. Louis-based company that provides wind energy solutions for small, medium, and large wind energy installations with several new patented wind turbine models.

SIX CONVERT, another portfolio company of Nidus Investment Partners, is commercializing a novel technology to enable wastewater-to-energy projects. Six Convert converts the CO₂ in biogas from wastewater into methane, for use in pipeline-ready natural gas. This allows for more biogas energy to be recovered compared with conventional biogas energy conversion processes.

SMALL BUSINESS SUCCESS



The EV charging station at NOVUS International.

MICROGRID ENERGY is changing the culture of renewable energy in St. Louis. MicroGrid Energy is a company that designs, finances, installs, and monitors solar energy for buildings and companies.

Over the past few years MicroGrid has grown from one to 18 employees, making it an important small business in our region.

In addition to installing solar arrays at regional establishments, MicroGrid Energy installed the region's first networked EV charging station.



ENERGY GENERATION (CONT'D)

ST. LOUIS WIND ENTREPRENEURS ARE TAKING THE MIDWEST

AFFINITY WIND is an independent wind energy company formed in 2008 and focused exclusively on utility-scale wind energy project development. Affinity formed a joint venture in 2011 with Suzlon Energy Limited, the world's fifth largest wind turbine manufacturer in terms of 2010 market share. Affinity and Suzlon are currently co-developing a \$248 million, 150 megawatt (MW) project in Pike County, IL, that will generate enough power for up to 40,000 homes. Affinity expects the Illinois project to be the first of several similar wind energy projects that it will develop with Suzlon over the coming years.



WIND CAPITAL GROUP is a wind power installation company that has built five wind farms in Missouri and has projects in development in 16 Midwestern and Great Plains states. Currently, Wind Capital Group is developing utility-scale wind farm projects all across the central U.S. and has offices in St. Louis, MO; Madison, WI; and Chicago, IL. Combining community relationships with experience and vision, Wind Capital Group has developed wind farms — currently operating or under construction — constituting nearly 1,000 MW of economically viable, clean, and renewable electric power capacity. Wind Capital Group's current projects have the potential to produce enough wind energy to power more than 300,000 homes, offsetting more than 1.6 million tons of CO₂ each year.



ADVANCED ENERGY PRODUCTS HERE IN ST. LOUIS!

MEMC ELECTRONIC MATERIALS is an international company that manufactures solar power and semiconductor products. The company's main research facility is in the St. Louis region. Sun Edison, an MEMC subsidiary, is North America's largest energy services provider.



ABENGOA BIOENERGY is an international biofuel company that produces 1,400ML of biofuel products in the United States each year. Their plant in Madison, IL can produce up to 88 million gallons of ethanol annually using traditional cereal grain as feedstock. Abengoa also invests heavily in research and development to improve its operations.

IESI-BFC and **AMEREN MISSOURI** have partnered to build the Maryland Heights Energy Center, a project to be completed in 2012 that will burn methane gas captured from the IESI-BFC landfill in Maryland Heights to generate 15 MW of electric power capacity.



AMEREN MISSOURI has created the Pure Power program to offer its customers an alternative to coal-fired electricity. Subscribers pay an additional fee, which is used by Ameren Missouri to purchase renewable power credits on behalf of the users.

CLEANTECH BIOFUELS, INC. holds an exclusive patent on its method of converting municipal waste into biomass for energy production. This process has the potential to dramatically reduce pollution released by waste disposal and reduce the amount of material entering landfills by up to 90 percent.

INNOVATIVE ENERGY INCORPORATED is a company deploying technology that generates electricity from various forms of carbon-based fuel, such as trash, wood, waste oil, and grasses.

MISSOURI VALLEY RENEWABLE ENERGY provides renewable energy systems design and installation.

NATIONAL CORN TO ETHANOL RESEARCH CENTER provides third-party validation and commercial product, technology, and concept testing related to ethanol generation.



PEABODY-GREATPOINT ENERGY AGREEMENT is a multi-corporation project to reduce the environmental impact of coal power plants to near zero using bluegas™ technology to convert coal-plant emissions into natural gas.

SECURE ENERGY, INC. is a St. Louis company that focuses on coal conversion technologies, specifically the coal gasification process that converts coal-fired emissions into a high-quality fuel that is blended with gasoline.

SUNWHEEL ENERGY PARTNERS is a renewable energy firm focused on driving the benefits of solar and other renewable energy sources to affordable housing, government, and community facilities across the country.

THE NEXT GENERATION OF FUELS



PHYCAL, located in the Bio Research and Development Growth (BRDG) Park facility at the Donald Danforth Plant Science Center, is an advanced biotechnology laboratory developing an integrated production system for growing algae and producing commercially relevant energy products, primarily algal oil. Phycal's work involves biotechnology research and development to improve oil producing algae strains. Phycal incorporates traits into algae to facilitate its growth potential, hardiness, and metabolic efficiency and versatility, with the aim to lower costs of producing algal bio-fuels. These renewable fuels will be replacements for fossil fuels in several applications including aviation, motor vehicle transportation, heating, and electricity production, which reduces dependence on foreign oil.

NOVEL TECHNOLOGIES



AKERMIN technology uses the enzyme Carbonic Anhydrase to accelerate CO₂ absorption. This process enhances the CO₂ absorption rate using a naturally occurring enzyme that does not affect the energy consumption for CO₂ desorption. It can be applied to cost effectively reduce the size of the CO₂ absorber column for any process that applies carbonate solution chemistry to capture CO₂ in an energy efficient and environmentally friendly manner. By reducing the required capital and energy requirements, initial estimates supported by third-party analysis suggest that this technology can capture CO₂ at a cost up to 50 percent lower than commercially available technologies.

AQUAL is a water treatment company developing solutions to challenging water treatment problems using bio-friendly treatment chemicals and practices. Aqual transforms renewable materials into high performance products using “green chemistry.”



ENVIRONMENTAL ENGINEERING

The St. Louis region is home to many skilled environmental engineering companies. They are advanced in environmental remediation, land surveying, and water quality and testing.

AQUATERRA specializes in areas of environmental engineering including, environmental, health and safety services, solid waste, air services, alternative energy engineering, water resources engineering, civil design, compliance services, and Geoprobe® services.

BURNS & MCDONNELL offers engineering, architectural, construction, and environmental consulting services to the St. Louis region. Burns & McDonnell has assisted in St. Louis area projects, including city infrastructure, water and wastewater, power generation, air quality improvements, and laboratories.

EAGLE ENVIRONMENTAL MANAGEMENT, LLC offers services for air, water, land, and building needs. Some of their services include waste management, environmental regulatory and legal compliance assistance, and preliminary site assessment.

ENVIRONMENTAL OPERATIONS is a turn-key environmental consulting, contracting, and demolition service company.

GEOTECHNOLOGY, INC. is an engineering and environmental services corporation, which performs geological and environmental assessments on project sites and assists in federal and state regulatory compliance. Geotechnology's services include overall site evaluation, air permitting and monitoring, energy audits, and hazardous waste management.

GOLDER ASSOCIATES, INC. is a civil, geotechnical, and environmental consulting firm for global industrial ventures. Golder Associates provides services in ground engineering, natural resource management, environmental and social assessments, environmental management and compliance, decommissioning and decontamination, and planning/design.

RJN GROUP is an engineering and information technology consulting firm that specializes in infrastructure project planning, design, construction, maintenance, and management, with specific expertise in water, sewage, drainage, and transportation.

SCI ENGINEERING is a multi-discipline professional consulting and engineering firm offering services during all project phases—from development and design through final construction.

URS CORPORATION is an engineering, construction, and maintenance consulting firm with experience in energy generation facilities, infrastructure projects, and commercial and industrial construction.

AMERICAN WATER is the largest investor-owned water utility in the state, providing high-quality and reliable water and wastewater services.

INSITUFORM TECHNOLOGIES, INC. is a leading worldwide provider of cured-in-place pipe (CIPP) and other technologies and services for pipeline system rehabilitation. Insituform's businesses specialize in sewer, drinking water, energy, and mining pipeline rehabilitation and protection.

METROPOLITAN SEWER DISTRICT (MSD) manages the City of St. Louis' storm water and wastewater treatment plants, as well as infrastructure for businesses and residents located in the City of St. Louis and St. Louis County. The St. Louis MSD is currently planning a major infrastructure overhaul, which includes about \$100 million focused on green infrastructure and planning. MSD's green infrastructure development will include projects like bioswales and rain gardens.

RAVEN ENVIRONMENTAL PRODUCTS are used in drinking water filtration plants, municipal wastewater treatment plants, and commercial products like food, paper, and chemicals.

GRIDLOGIX delivers software solutions that enable businesses to use both wired and wireless networks in securely monitoring and managing remote assets and equipment in real-time on the Internet. By using Gridlogix software, factories, facilities, hospitals, and institutions can achieve total operational control while dramatically reducing operation and energy costs.

ENVIRONMENTALLY RESPONSIBLE PRACTICES



SCI Engineering performs concrete quality control testing services. The test is performed by pouring concrete into a plastic cylinder and leaving it to harden. Once the cylinders are tested, the concrete is ready for disposal. The test may either leave the cylinder whole, meaning it passed the test, or it may leave the cylinder in broken pieces, meaning that the test failed. Intact cylinders are stacked for re-use. There are several potential uses for these intact cylinders, including:

- Rip Rap; Erosion control
- Stabilization along creek banks or lakes
- Edging along gardens or yards; patio pavers
- Painted cylinders for use in landscaping decoration
- Boat anchors
- Fish habitat

The City of Fairview Heights collects SCI's discarded broken cylinders to re-use for erosion control around lakes and other municipal areas.





AGRICULTURE

ST. LOUIS SUSTAINABLE AGRICULTURE COMPANIES THAT HAVE GLOBAL IMPACT

MONSANTO



MONSANTO has made a business out of producing more with less. In 2008, they set a series of goals to work with farmers to make agriculture more sustainable. These goals state that by 2030 Monsanto will do its part in: developing improved seeds that help farmers double yields from year 2000 levels for corn, soybeans, cotton, and spring-planted canola; pledging a \$10 million grant to improve wheat and rice yields through Monsanto’s Beachell Borlaug International Scholars Program; developing seeds that use one-third fewer key resources per unit of output; working to lessen habitat loss; and improving water quality.

BUNGE, a company headquartered in St. Louis, is working to meet the growing global demand for food with a focus on improving the sustainability of the entire food production chain from farm to table. Bunge works with farmers individually to improve the food production chain at its first and most vital link, while also contributing to larger efforts addressing agricultural sustainability. The World Economic Forum, Bunge, and other leading global companies have issued “A New Vision for Agriculture”—a roadmap for global food and agricultural sustainability with clear goals: increase agricultural production by 20 percent; decrease greenhouse gas emissions from agricultural production by 20 percent; and reduce rural poverty by 20 percent every decade to meet the needs of a rapidly growing world.



SOLAE, headquartered in St. Louis, is a global leader in soy production. Soy is an environmentally sustainable, economically efficient, and nutritionally complete protein that meets the needs of a growing global population. Soy uses far less water than other animal-derived proteins such as milk, meat, and eggs. This has the effect of saving more than four million gallons of water for each ton of soybeans produced.

NOVUS is a provider of Health Through Nutrition for livestock, pets, and people. Approaching work sustainably is a requisite consideration at Novus. Every business project is cross-checked to ensure that the company’s sustainability criteria—social, economic, and environmental (SEE)—are achieved. Novus continues its commitment to sustainable products and services by providing innovative livestock nutrition solutions, working locally with customers, engaging in research, advancing knowledge transfer in emerging markets, and doing business in a way that cares for the planet. In addition, the Novus International headquarters in St. Louis is LEED Platinum, which is the highest green building certification offered by the U.S. Green Building Council.



BRDG PARK at THE DANFORTH PLANT SCIENCE CENTER

Located in the heart of the nation’s “BioBelt,” home to nearly 400 plant and life sciences companies with more than 16,500 employees, BRDG Park is at the national and international center for plant and life sciences research.

BRDG Park is uniquely prepared and positioned to host plant and life sciences and clean-tech companies from the early business stages to those that have advanced their science, demonstrated proof of concept, raised additional monies, and are poised for growth.



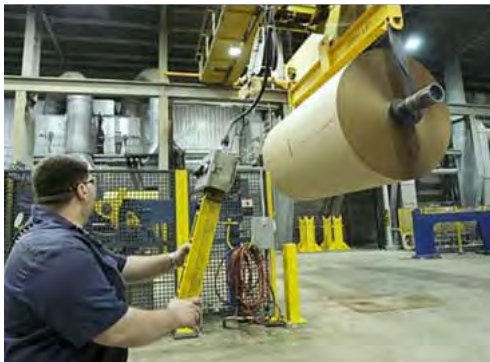


WASTE & RECYCLING



St. Louis is a leader in waste and recycling companies. We have companies that are converting waste to novel, new products and companies that are looking for ways to reduce and better process existing waste.

ROCKTEEN CORPORATION is a leading manufacturer of paper-board and paper-based packaging, and has emerged as a global leader for collecting and reusing recycled paper. Certified by the Sustainable Forestry Initiative, RockTenn created innovative packaging materials in an effort to decrease the company's environmental footprint.



ABITIBOWATER RECYCLING DIVISION is one of the world's largest newsprint recyclers and producers. Providing single-stream recycling to area businesses, companies often save up to 30 percent on their waste expenses.

ALLIED WASTE collects trash and recycling materials in communities throughout the St. Louis region.

ALTER TRADING CORPORATION is one of the largest ferrous and non-ferrous metal recyclers in the country, serving industrial clients and salvage operations.

BECKER IRON AND METALS recycles ferrous and non-ferrous scrap metal for clients in manufacturing, demolition, construction, mechanical contracting industries, and the public throughout the Midwest.

HWI ENVIRONMENTAL TECHNOLOGIES is an environmental and ecological consulting company providing alternative treatment and recycling options for hazardous waste generators.

PSC INDUSTRIAL SERVICES treats hazardous and non-hazardous waste streams, among other industrial cleaning services. PSC also created a sustainable supply-chain called livegreennow™, which includes sustainable sourcing goals for upstream and downstream partners. Better Performance with livegreennow™ focuses energy and resources on improving the company's triple bottom line, resulting in the highest level of customer service and satisfaction based on specific performance metrics.



TOTAL METAL RECYCLING is an international metals recycling company processing all ferrous and non-ferrous metals, with a strong commitment to environmentally friendly operations.

WASTE MANAGEMENT, INC. is North America's leading environmental management solutions provider, including waste disposal, collection, and valuable materials recovery.

NOVEL TECHNOLOGIES



CARBOLYTIC MATERIALS COMPANY manufactures a proprietary carbon pellet extracted from existing rubber products that is a lower cost alternative to carbon black.

TRASH = METHANE

RINNOVI works to convert methane from landfill waste to methanol, which can be used in several commercial scenarios. Rinnovi is seeking to prove its concept and develop a pilot plant to demonstrate products and sell licenses.

Landfill gas is comprised of approximately 50 percent methane (CH₄) and 50 percent carbon dioxide (CO₂), plus small amounts of organic compounds and numerous impurities. Methane is the primary component of natural gas and can be converted to methanol. This conversion does not occur naturally and must be forced by a catalyst under pressure and temperature treatment.

Rinnovi's concept would use methanol as a renewable energy source and alternative to gasoline.

GREEN COMPANY SUCCESS STORIES

ENVIROPAK is a premier manufacturer of molded pulp packaging to help protect a wide range of products, including custom applications for trays, clamshells, and end caps. Enviropak's mission is to provide world-class, sustainable, and environmentally friendly packaging solutions.



ST. LOUIS TO BE THE HOME OF THE NEXT GENERATION ELECTRIC VEHICLE



Emerald Automotive, a British Company, plans to assemble hybrid-electric vans and could add an estimated 580 manufacturing and related supplier jobs by 2015 at a new \$175 million plant in Hazelwood.

Emerald will assemble the lightweight t-001 hybrid-electric delivery van. The t-001 offers fleet operators a cost effective solution to achieving low CO₂ emissions without increasing running costs. The predicted cost for vehicle fueling using the t-001 is significantly reduced, based on typical fleet usage. The t-001 runs entirely on a 75 kW electric motor for the first 66 miles, after which an on-board range extending internal combustion engine supplements the electric motor and recharges the battery, extending the vehicle range to 463 miles. The result is a delivery van with impressive range that produces up to 80 percent fewer CO₂ emissions than comparable vehicles and achieves 138 mpg over the first 125 miles. Visit www.emeraldautomotive.com for more details.



CLEAN TRANSPORTATION

Vehicle technology is changing rapidly to meet consumer and regulatory demands. St. Louis is responding to alternative vehicle and fuel challenges by developing ways to capitalize on this growing market.

ENTERPRISE RENT-A-CAR with headquarters in St. Louis, expanded their electric vehicle (EV) fleet, the largest in the nation. Enterprise also has three LEED certified facilities and is planning to invest over \$150 million in sustainable construction over the next five years.



AT&T manages a nationwide fleet operation in St. Louis. The company plans to replace 15,000 vehicles across the country with electric and compressed natural gas vehicles (CNG) by 2018. In St. Louis, the AT&T fleet includes 60 CNG vehicles and the Newton, the world's largest electric truck.

LAMBERT-ST. LOUIS AIRPORT uses CNG supplied by Laclede Gas to fuel airport service vehicles and the Super-Park shuttle service. The airport plans to open a public CNG station in 2011.



METRO is the St. Louis region's transit agency. Customers used MetroLink, MetroBus, and Call-A-Ride 40 million times in fiscal year 2011. During an average weekday, the Metro system helps reduce congestion by taking approximately 45,000 vehicles off area roadways.



ST. LOUIS SUSTAINABLE COMMUNITY INITIATIVES

Beyond the business community, St. Louis has a plethora of robust community initiatives focused on sustainability. The initiatives listed on the following pages primarily consist of public-private and multi-organizational partnerships oriented around green economic development issues. The initiatives target everything from the built environment to education and outreach programs. The list highlights the breadth of the St. Louis region's non-profits, community organizations, and business associations that have been working on greening the area for years. The list of initiatives below is not comprehensive, but will evolve over time as even more community involvement occurs. Please visit www.stlrcga.org/greenprint.xml to see an updated list.

Category	Title	Activities	Organization(s)
BUILT ENVIRONMENT & LANDSCAPE	FarmWorks	FarmWorks will be a unique LEED-certified urban agriculture project developed by LoftWorks, LLC at the historic St. Louis Stamping Company site. FarmWorks will consist of four components: 1) an urban farm with innovative indoor and outdoor sustainable growing spaces, 2) a transitional residential facility for special needs ex-offenders, 3) a Green Business Incubator facility focused on locally-grown foods, and 4) an educational facility offering classes and tours for area schools and the public.	LoftWorks www.farmworksstl.com www.loftworks-stl.com
	Gateway Greening	Gateway Greening contributes to neighborhood vitality and stability through community food projects, education and wellness programs, and civic greening. They form alliances with institutions of all kinds to provide resources for citizen-managed open spaces that encourage healthier, safer, and more enriched lives. Gateway Greening provides the resources and knowledge necessary to enable citizens to develop food-producing gardens and landscaped areas on public land.	Gateway Greening www.gatewaygreening.org
	Great Streets Initiative	Since 2006, the St. Louis Great Streets Initiative helps communities create interesting, lively, and attractive streets that serve all transportation modes. The program's goal is to enhance economic and social community benefits by creating safe, walkable, and economically vital streets, while incorporating environmentally sensitive design standards and green development techniques. Great Streets projects are underway on Grand Avenue, Natural Bridge Road, and Manchester Road.	East-West Gateway Council of Governments www.greatstreets-stl.org www.ewgateway.org
	Habitat for Humanity LEED Homes	In 2008, Habitat for Humanity Saint Louis built the third largest LEED Platinum development in the United States with 27 LEED Platinum homes in the JeffVanderLou area. They added another 40 LEED Platinum homes to that neighborhood in 2009-2010, and have seven more planned for 2011. Habitat for Humanity has contributed over one-third of the LEED certified buildings in the St. Louis area.	Habitat for Humanity St. Louis www.habitatstl.org
	Home Builders Association (HBA) Green Building Program	The HBA of St. Louis & Eastern Missouri developed a local verification program in 2005 called the Green Building Initiative - Home Verification Program. Since that time, 261 homes have been verified to the National Association of Home Builders Green Building Guidelines. Laclede Gas Company has assisted HBA since the beginning of the initiative with technical inspections that provide quality control mechanisms and help the homes perform optimally.	HBA of St. Louis, Laclede Gas Company, Missouri Botanical Garden www.stlhba.com www.lacledegas.com www.mobot.org

Category	Title	Activities	Organization(s)
BUILT ENVIRONMENT & LANDSCAPE (continued)	Kids Garden Fresh Grant Program	The Monsanto Fund Kids Garden Fresh grant program is implemented in partnership with Gateway Greening and supports youth-centered gardens throughout the world. Gardens are invaluable tools that can teach children how to grow food, show them the important role food plays in our health, and present opportunities to integrate hands-on lessons in all subjects.	Monsanto, Gateway Greening www.monsantofund.org www.gatewaygreening.org
	Lexington Farms, net-zero energy subdivision	MidAmerica Solar, Sachs Electric, and Capstone Development Group designed and built the Lexington Farms subdivision to provide residents no-cost electricity in Jerseyville, IL. Rooftop solar panels and wind turbines mounted over garages provide power to all 32 homes at Lexington Farms.	MidAmerica Solar, Sachs Electric, Capstone Development Group www.midamericasolar.com sachsco.com
	Renewable Energy Community Development	McCormack Baron Salazar and their renewable energy partner, Sunwheel Energy Partners, combines renewable energy development with job creation and a holistic community development approach in creating mixed income communities in St. Louis. Examples of their community work are in the Gate District and JeffVanderLou neighborhoods of St. Louis.	McCormack Baron Salazar www.mccormackbaron.com
	The River Ring	The Great Rivers Greenway District works for a clean, green, connected St. Louis region. To deliver its mission, the District is spearheading The River Ring development, an interconnected system of greenways, parks, and trails that will eventually encompass a 600-mile web of more than 45 greenways, providing wide access to trail and greenway projects developed by the Metro East Park and Recreation District in Madison and St. Clair counties, IL.	Great Rivers Greenway www.grgstl.org
	Urban Harvest STL	Koken Manufacturing Co. has provided Urban Harvest STL with a long-term lease on a half acre of shovel-ready land located just north of City Museum. This project will be the first community garden installation serving downtown St. Louis.	Urban Harvest STL, Koken Manufacturing Co. urbanharveststl.org

Category	Title	Activities	Organization(s)
TRANSPORTATION	Downtown Bicycle Station	The Downtown Bicycle Station offers secure 20-hour access and features over 120 bike racks, showers, and locker rooms; ideal for cyclists commuting to work downtown or looking to exercise on their lunch break.	Trailnet, City of St. Louis www.trailnet.org www.stlouis-mo.gov/sustainability
	Electric Vehicle Task Force	The St. Louis Regional Clean Cities Electric Vehicle Task Force is a group of community leaders focusing on infrastructure, electric vehicle deployment, training, and education.	Ameren, St. Louis Community College, St. Louis Clean Cities, East-West Gateway Council of Governments www.ameren.com www.stlcc.edu www.stlcleancities.org www.ewgateway.org
	Livable St. Louis Network	The Livable St. Louis Network, a collaboration of public, private, community-based, governmental, and academic partners, share a vision that the St. Louis region will be a vibrant and livable community where transportation and land use decisions balance the needs of all residents and increase opportunities for all to achieve a high quality of life while enjoying the benefits of a thriving economy.	Trailnet www.trailnet.org
	Moving Transit Forward	Moving Transit Forward is a comprehensive thirty-year plan for transit improvements, which will help keep the St. Louis region a great place to live, work, and play. With input from thousands of regional leaders, businesses, and citizens, Metro created Moving Transit Forward with three goals in mind: 1) enhancing transit service in the near- and long-term, 2) retaining existing riders while attracting new ones, and 3) increasing the overall efficiency of the St. Louis regional transit system.	METRO www.metrostlouis.org
	RideFinders	RideFinders is the St. Louis regional rideshare program created by Madison County Transit in 1994 to improve air quality by reducing traffic congestion. With federal funding, Madison County Transit operates RideFinders as a free public service for commuters working or attending colleges in the City of St. Louis and Franklin, Jefferson, St. Charles, and St. Louis counties in Missouri; and Jersey, Madison, Monroe, and St. Clair counties in Illinois.	Madison County Transit www.mct.org
	St. Louis Regional Clean Cities	The St. Louis Regional Clean Cities program is a voluntary initiative sponsored by the U.S. Department of Energy to expand the commercial use of vehicles that operate with fuels other than petroleum-based gasoline and diesel.	St. Louis Regional Clean Cities www.stlcleancities.org
	Transit Oriented Design (TOD) Workshops	Citizens for Modern Transit provides Technical Assistance Panel (TAP) presentations and conducts studies on TOD concepts at Metrolink stations with the intention of driving TOD at specific sites.	Citizens for Modern Transit, Urban Land Institute www.cmt-stl.org www.stlouis.uli.org

Category	Title	Activities	Organization(s)
AIR QUALITY	St. Louis Clean Air Partnership	The Clean Air Partnership disseminates daily air quality forecasting in the summer months and engages the public in the regional clean air effort. A key initiative encourages citizens to carpool and take mass transit to reduce emissions and benefit participants in ways driving alone cannot.	American Lung Association – St. Louis Chapter, East-West Gateway Council of Governments www.lungusa.org www.ewgateway.org
RENEWABLE ENERGY	EPA Green Power Challenge	On April 20th, Clayton became the first Green Power Community in Missouri, joining an elite list of 37 communities nationwide to partner with the Environmental Protection Agency (EPA) on green power purchasing.	City of Clayton, Microgrid Energy, Duke Realty www.claytonmo.gov www.microgridenergy.com www.dukerealty.com
	O’Fallon Energy Research Park	The City of O’Fallon, MO proposes to build a high-tech research park geared specifically toward the high-growth renewable energy sector. The Park will serve as a catalyst for green economic growth in the region.	City of O’Fallon, MO www.ofallon.mo.us
RECYCLING	4 A Greener Game	The St. Louis Cardinals began the “4 A Greener Game” program at Busch Stadium in the 2008 season in collaboration with StLouisGreen.com and its volunteers. What began as a two-month pilot program has grown into a successful volunteer program that averages over 25 volunteers per game.	St. Louis Cardinals, St. Louis Green www.cardinals.com www.stlouisgreen.com
	Green Dining Alliance	The Green Dining Alliance (GDA) will work with area restaurants to reduce their environmental impact by evaluating all operational aspects, including reducing, recycling and composting restaurant waste, and sourcing sustainable foods, to-go ware, and cleaning supplies.	St. Louis Earth Day www.stlouisearthday.org
	ReSource St. Louis	The mission of ReSource St. Louis is to divert construction and demolition materials from local landfills by offering environmentally and financially responsible alternatives to the traditional construction process.	ReSource St. Louis www.resourcestlouis.org
EDUCATION AND OUTREACH	Apprenticeship Training Programs	A number of regional organizations have technician and installer-level certifications for green construction and weatherization, sheet metal workers, plumbers and pipefitters, and carpenters.	Carpenters’ Union and Urban League, Sheet metal Workers Local 36, Plumbers & Pipefitters Local 562 www.carpdc.org www.ulstl.org www.sheetmetal36.org www.local562.org
	Green Homes & Great Health Festival	An annual St. Louis conference illustrating green homes, green lifestyles, entertainment, and options for good health. Festival workshops focused on green home renovation, solar energy, and bicycle commuting.	Missouri Botanical Garden, Siteman Cancer Center, Washington University School of Medicine www.mobot.org www.siteman.wustl.edu medschool.wustl.edu

Category	Title	Activities	Organization(s)
EDUCATION AND OUTREACH (continued)	St. Louis Earth Day Festival	The St. Louis Earth Day Festival is the oldest and largest of its kind in the Midwest. Attracting 27,000+ attendees annually, the Festival is a premier destination for the public to learn about a wide range of environmental issues in an engaging and entertaining setting.	St. Louis Earth Day www.stlouisearthday.org
	StLouisGreen.com	StLouisGreen.com is a website with information on green products, services, businesses and events in the St. Louis region. This website includes StLouisGreenJobs.com — a listing of green jobs in the St. Louis region. StLouisGreen.com also provides a listing of education curriculum for area higher education institutions.	St. Louis Green www.stlouisgreen.com
	St. Louis Higher Education Sustainability Consortium	The mission of the St. Louis Regional Higher Education Sustainability Consortium is to connect the strengths, resources, and knowledge of St. Louis-area universities and colleges, to advance collective sustainable initiatives that cultivate innovation, to eliminate non-productive competition, and to create a network that is more than the sum of its parts.	EarthWays Center, HOK, Maryville University, RCGA, St. Louis University, Lewis and Clark Community College, SWIC, STLCC, Washington University www.earthwayscenter.org www.hok.com www.maryville.edu www.slu.edu www.lc.edu www.swic.edu www.stlcc.edu www.wustl.edu www.stlrcga.org
	St. Louis Regional Green Impact Zone	In collaboration with Better Family Life, this project is modeled after the Kansas City Green Impact Zone, and marshals all aspects of energy efficiency, green job training and placement, energy conservation, and consumer education efforts within Missouri's 1st Congressional District.	Better Family Life, St. Louis County Workforce Investment Board, SLATE www.betterfamilylife.org www.stlouisco.com www.stlworks.com
	Sustainability Matters Series	A conference series on sustainability hosted by the St. Louis University Center for Sustainability. Seminar topics ranged from the ethics of sustainability to the role of public policy.	St. Louis University www.slu.edu/x35576.xml
	U.S. Green Building Council (USGBC) – Missouri Gateway Chapter	The mission of the Missouri Gateway Chapter of the USGBC is to initiate, develop, and accelerate implementation of green building concepts, technologies, and principles that promote environmentally responsible, profitable, and healthy places to live and work. The chapter's programs include: LEED for Schools, Green Shadow, and the Sustainable Sites Initiative—an effort to create voluntary national guidelines and a ratings system for sustainable landscapes of all types, with or without buildings.	USGBC - Missouri Gateway Chapter www.usgbc-mogateway.org

Category	Title	Activities	Organization(s)
ADVOCACY/GOVT INCENTIVES/POLICY	Missouri HB 737: Incentives for Renewable Energy Projects	On July 7, 2011, Governor Jay Nixon signed HB 737 into law, creating Missouri's first comprehensive tax incentive for renewable energy projects. The legislation amends the Missouri Enhanced Enterprise Zone program to create "renewable energy generation zones," which will allow municipalities to provide for a reduction in real property tax liability for renewable energy projects.	State of Missouri www.mo.gov
	Renew Missouri	Renew Missouri was formed in 2006 to advance energy efficiency and renewable energy in Missouri. Renew Missouri includes organizational policy advocacy for programs like PACE, Proposition C, and SB 376: the Energy Efficiency Investment Act.	Missouri Solar Energy Industries Association, Missouri Coalition for the Environment www.moseia.org, www.moenviron.org
	St. Louis County SAVES™	St. Louis County SAVES™ is a \$10.4 million residential energy efficiency loan program for homeowners located in St. Louis County. The program was created from the county's Energy Efficiency Community Block Grant program (EECBG), which is part of the American Reinvestment and Recovery Act.	St. Louis County, Missouri Botanical Garden, Abundant Power Solutions www.stlouiscountysaves.com www.mobot.org www.abundantpower.com
SUSTAINABILITY	FOCUS St. Louis – Environmental Sustainability Roadmap	A 33 member citizen-based task force convened by FOCUS designed an action plan to be a catalyst for positive community change. It brings together sustainable best practices, resources, recommendations, and case studies in a usable format to help local governments navigate the path toward environmental sustainability and a more attractive community.	FOCUS St. Louis www.focus-stl.org
	St. Louis City GHG Inventory and Sustainability Plan	In 2011, The City of St. Louis and partners will: 1) collect data for a GHG emissions inventory and forecast, 2) conduct a comprehensive sustainability assessment, 3) establish goals and partnerships, 4) identify targets and measures, 5) develop a strategic triple+ bottom line sustainability plan, and 6) create implementation and monitoring methodology.	St. Louis Community College, ICLEI, HOK, H3, Development Strategies, Energy Strategies, Vector Communi- cations, KAI Design & Build www.stlcc.edu, www.iclei.org, www.hok.com, www.h3studio.com, www.development-strategies.com, www.vectorstl.com, www.kai-db.com
	St. Louis Climate Prosperity Project	The RCGA's environmental initiative is the St. Louis Climate Prosperity Project that unites the region's economic competitiveness with sustainability. The Climate Prosperity Project advances the idea that innovation, efficiency, and conservation in the use and reuse of resources can increase jobs, incomes, productivity, and the competitiveness of a region.	St. Louis Regional Chamber & Growth Association www.stlrcga.org
	St. Louis County Green and Growing	The St. Louis County Green and Growing initiative is a long-range sustainability framework for the County. This effort includes a comprehensive greenhouse gas (GHG) inventory and recommended GHG reduction targets, which will help guide the County's decision-making in areas of sustainability.	St. Louis County www.stlouisco.com
	Sustainable Communities HUD Grant	The St. Louis region was awarded a \$4.6 million planning grant that will bring over 36 local entities together to work collaboratively and engage in a comprehensive regional planning process to achieve and protect sustainable, equitable, and livable communities.	East-West Gateway Council of Governments, Trailnet, FOCUS St. Louis, Applied Research Coalition www.ewgateway.org, www.trailnet.org, www.focus-stl.org



For further information on the St. Louis Greenprint 2012, visit our website at www.stlrcga.org/greenprint.xml, or contact Eric Schneider, Senior Director of Energy and Environment at eschneider@stlrcga.org.