

North Carolina Green Economy Resource Directory



Photo Courtesy of Sundance Power Systems



North Carolina Department of Commerce

Division of Community Assistance
21st Century Communities Program
www.nccommerce.com/21cc

and

NC Board of Science and Technology
Green Business Fund
www.ncscitech.com/gbf

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North Carolina Department of Commerce,
Division of Community Assistance,
21st Century Communities Program
and
North Carolina Board of Science and Technology,
Green Business Fund

The purpose of the North Carolina Green Economy Resources Directory is to highlight local, regional state and national organizations that provide support, guidance, funding, incentives and education for North Carolina's green economy. Designed with collaboration in mind, suggestions are expected!

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Table of Contents

Notable Quotes	4
Examples of Green Jobs	5
Reports and Reference Materials	5
Government, Non-Profits, and Funding Opportunities	
State Government	6
Federal Government	7
Non-Profit	8
Other	10
Councils of Government	11
Colleges and Universities	12
Green-Collar Jobs Overview	14

<p>Bill Gates calls the green economy the “biggest economic opportunity in the country.”</p>	<p>Major corporations from Starbucks to Sun Microsystems publish their carbon footprint data. In April 2007, Yahoo announced its goal to become 100% carbon neutral by the end of the year.</p>	<p>Time Magazine, in its March 24, 2008 article entitled, “Ten Ideas That are Changing the World,” identified “Sustainable Development” as the #1 idea for the next 100 years.</p>
<p>In June 2006, The Times of London estimated that the global market for low-carbon technologies could reach \$645 billion over the next few decades.</p>	<p>In May 2007, Rupert Murdoch’s giant media company, NewsCorp, pledged to become carbon neutral by 2010.</p>	<p>CitiGroup committed \$50 billion over ten years in investments and project financing to reduce global carbon emissions.</p>
<p>IBM’s “Big Project Green” is a \$1 billion investment to make its operations more energy efficient.</p>	<p>NOTABLE QUOTES</p> <p>From “Green Jobs: A Guide to Eco Friendly Employment”</p>	<p>“All sectors of the green economy are growing faster than their conventional counterparts” – Coop America’s 2007 Green Pages.</p>
<p>Venture capital investment in energy technology start-ups increased to \$2.4 billion in 2006, up 262%</p>	<p>In 2007, Bank of America pledged \$20 billion to support the growth of environmentally sustainable business activity over the next decade.</p>	<p>Former President Bill Clinton called the green job sector the biggest economic boom since this country mobilized for WWII.</p>
<p>The American Solar Energy Society estimates that in 2006 alone, renewable energy and energy efficiency were responsible for \$970 billion in industry revenues and 8.5 million jobs.</p>	<p>“Greentech companies are the mother of all markets” – Kleiner, Perkins, Caufield and Byers – (One of Silicon Valley’s oldest and most respected venture capital firms. Early investor in more than 300 information technology and biotech firms.)</p>	<p>U.S. Department of Commerce’s Deputy Assistant Secretary for Economic Development (Benjamin Erulkar) advised that if he could give one piece of advice, it would for communities and states to develop their <u>green economy</u>.</p>

Examples of Green Jobs

Strategies for Green Economy Investments	Representative Jobs
Building Retrofitting	Electricians, Heating/Air Conditioning Installers, Carpenters, Construction Equipment Operators, Roofers, Insulation Workers, Carpenter Helpers, Industrial Truck Drivers, Construction Managers, Building Inspectors
Mass Transit	Civil Engineers, Rail Track Layers, Electricians, Welders, Metal Fabricators, Engine Assemblers, Production Helpers, Bus Drivers, First-Line Transportation Supervisors, Dispatchers
Energy-Efficient Automobiles	Computer Software Engineers, Electrical Engineers, Engineering Technicians, Welders, Transportation Equipment Painters, Metal Fabricators, Computer-Controlled Machine Operators, Engine Assemblers, Production Helpers, Operations Managers
Wind Power	Environmental Engineers, Iron and Steel Workers, Millwrights, Sheet Metal Workers, Machinists, Electrical Equipment Assemblers, Construction Equipment Operators, Industrial Truck Drivers, Industrial Production Managers, First-Line Production Supervisors
Solar Power	Electrical Engineers, Electricians, Industrial Machinery Mechanics, Welders, Metal Fabricators, Electrical Equipment Assemblers, Construction Equipment Operators, Installation Helpers, Laborers, Construction Managers
Cellulosic Biofuels	Chemical Engineers, Chemists, Chemical Equipment Operators, Chemical Technicians, Mixing and Blending Machine Operators, Agricultural Workers, Industrial Truck Drivers, Farm Product Purchasers, Agricultural and Forestry Supervisors, Agricultural Inspectors

Reports and Reference Materials

Green Jobs in NC – A 2008 Assessment: Executive Summary – Sustainable Economy Consulting, Charlotte, NC

- In 2008 North Carolina has an estimated 63,000 green jobs, including those found in enviro-sectors as well as greener jobs in other parts of the economy.
- Steady and predictable job growth is estimated to be strongest in renewable energy, sustainable farming and natural health products.
- Sustainable forestry, recycling and sustainable tourism/crafts should see moderate job growth, and higher levels if public policy and consumer demand can spur business development and innovation.
- Recycling employs a surprising 14,000 workers.
- The largest environmental sector in 1996 and in 2008 is the often overlooked environmental technology field, including environmental services and equipment. It provides an estimated 25,000 jobs.
- Job quality and wages for green jobs are mixed. While some jobs are pleasant, well-paid and desirable, others offer challenging working conditions and/or low pay (e.g., some recycling sorting facilities and hazardous waste operations.)
- Greening existing industries, such as N.C.'s large manufacturing and tourism economies, could easily create more green jobs than development of smaller niche green industries. How to define and measure our green jobs remains a challenge.
- For the most part, North Carolina has strong government and non-profit resources to spur the development of green jobs and greener industries.
- Growing North Carolina's green economy and jobs requires attention to a number of factors: R&D, entrepreneurship, availability of capital, worker training, raw material supply, regulations and consumer demand.

For the full report, go to www.sustainable-economies.com/nc_green_jobs_2008.pdf

Article on an Asheville project with green job training for pathways out of poverty:

www.mountainx.com/news/2008/050708_blazing_a_pathway_out_of_poverty

Day of Action: Green Jobs Now in Asheville

www.mountainx.com/news/2008/092408buzz2

“Green Jobs: A Guide to Eco-Friendly Employment” – K.C. Golden and James P. Hendrix (Western Carolina University). Hard copy only - available through online book ordering web sites or by request through your local bookstore.

Government, Non-Profits, and Funding Opportunities

State Government

North Carolina Board of Science and Technology - One NC Small Business Fund

www.ncscitech.com/oncsbp/index.htm

The One North Carolina Small Business Program is comprised of two programs: the North Carolina SBIR/STTR Phase I Incentive Funds Program and the SBIR/STTR Phase I Matching Funds Program. The purpose of the Phase I Incentive Funds Program is to reimburse qualified North Carolina businesses for a portion of the costs incurred in preparing and submitting Phase I Proposals to the Federal Small Business Innovation Research (SBIR) Program and Small Business Technology Transfer (STTR) Program (the “Federal SBIR/STTR Program”). The **Phase I Matching Funds Program** is designed to award matching funds to North Carolina businesses who have been awarded a SBIR or STTR Phase I award.

North Carolina Board of Science and Technology - Green Business Fund (Government)

<http://www.ncscitech.com/gbf>

The \$1,000,000 fund helps companies develop cutting-edge green technologies. These competitive grants will help small businesses develop promising green and alternative energy technologies to bring cutting-edge, environmentally-friendly products and services to the marketplace.

North Carolina Department of Commerce (Government)

www.nccommerce.com

Home for growing and sustaining businesses in North Carolina, the Commerce team develops recruiting, retention and tourism marketing programs, but focuses its work comprehensively around a more strategic definition of economic development: the implementation of a set of long-term strategies that develop North Carolina’s capacity for economic growth and strength. Said another way, North Carolina’s ability to recruit and retain good jobs depends on very fundamental work to make our state a good place to live, work, and invest. The department’s various divisions include: Administration; Business and Industry Development; Communications and External Relations; Community Development; Finance Center; International Trade; Marketing; Policy, Research and Strategic Planning; Science and Technology; Tourism, Film and Sports Development; and Workforce Development.

North Carolina Department of Environmental and Natural Resources

www.enr.state.nc.us/html/tax_credits.html

Provides links to financial resources and tax credits for businesses.

North Carolina Energy Efficiency Legislation

www.ncleg.net/gascripts/BillLookUp/BillLookUp.pl?Session=2007&BillID=s668

In August 2007, the North Carolina General Assembly passed an act (SB 668) to promote the conservation of energy and

water use in state, university and community college systems, establishing energy efficiency requirements of 20% by 2010 and 30% by 2015. This presents an unprecedented green job training opportunity for all of North Carolina, as the bill also calls for use of local labor and businesses.

North Carolina Energy Utility Legislation and NC Energy Company Grants

www.progress-energy.com/community/foundation/index.asp

www.duke-energy.com/community/foundation/areas-of-focus.asp

In August 2007, Governor Easley signed a new law making North Carolina the first state in the Southeast to require electric utilities to use renewables and efficiency programs. Progress Energy and Duke Energy will have to meet 12.5 percent of their retail electricity demand through renewables and efficiency by 2021. Progress and Duke Energy both offer grants programs pertaining to green job training.

North Carolina Office of Environmental Education

www.ee.enr.state.nc.us/consumer/green_development.htm

Serves as a clearinghouse linking people to environmental education materials, facilities, programs and professionals across the state.

North Carolina Project Green

www.ncprojectgreen.org

In fall of 1998, North Carolina Executive Order 156 was issued, challenging state government to set an example of environmental stewardship. Across state government, this challenge was enthusiastically accepted. It was quickly discovered that many agencies were already engaged in numerous activities to reduce their environmental footprint. Now, local governments are joining the sustainability initiative by greening their buildings, fleets and purchases. It's time to reinvigorate this effort! Government employees across the state experience similar regulatory statutes and challenges, and share the extremely important role of providing services to the public. This positions government as a highly visible role model for the state's citizens, businesses and industries, and provides an excellent opportunity to set the example, leading the way in environmental stewardship. N.C. Project Green is an opportunity to unify our efforts of sustainability in North Carolina state and local government, where we can learn from our peers and create goals to succeed in environmental stewardship initiatives.

North Carolina Renewable Energy Tax Credits

www.ncretc.org

As of January 1, 2008 the State of North Carolina enacted among the most generous and accessible renewable energy technology incentive programs in the USA. Through this incentive, the State of North Carolina will return 35% of the cost of qualifying renewable energy projects through tax credits. This credit extends to individual taxpayers, businesses, and now, to taxpayers who donate to NC registered 501c3 non-profits.

North Carolina State Energy Office

www.energync.net/

The State Energy Office is North Carolina's lead agency for energy programs and services and serves as the official source for energy information and assistance for consumers, businesses, government agencies, community colleges and schools and the residential, commercial and industrial sectors. Funds the Waste Reduction Partners program and the Clean Cities program throughout the state. Provides low-interest loan program, called the Energy Improvement Loan Program, for energy improvements to businesses; NC Green Builder Training Certificate Program; Boiler Efficiency workshops and other funding opportunities.

Federal Government

Appalachian Regional Commission

www.arc.gov

Alternative Energy development grants available through the Appalachian Regional Commission

Green Collar Jobs Act

In late 2007, Congress passed the Green Collar Jobs Act. The Green Jobs Act (H.R. 2847) authorizes up to \$125 million in funding to establish national and state job training programs, administered by the U.S. Department of Labor, to help address job shortages that are impairing growth in green industries, such as energy efficient buildings and construction, renewable electric power, energy efficient vehicles, and biofuels development. It also helps to identify and track the new jobs and skills needed to grow the renewable energy and energy efficiency industries. Among other things, this effort would link research and development in the green industry to job standards and training curricula.

Tax Credits for Energy Efficiency

North Carolina Tax Credits www.ncsc.ncsu.edu/information_resources/fact_sheets.cfm

Federal Tax Credits www.energytaxincentives.org

The U.S. Green Building Council

www.usgbc.org

The U.S. Green Building Council (USGBC) is a non-profit organization committed to expanding sustainable building practices

USDA – Energy Programs and Funding

www.usda.gov/wps/portal/!ut/p/_s.7_o_A/7_o_1OB?navid=ENERGY&navtype=MS

Comprehensive information on energy-related programs, funding opportunities, and technical support across all USDA agencies and offices.

Non-Profit

Asheville Green Opportunity Corps

www.greenopportunities.org

The Asheville Green Opportunity Corps (Asheville GO) is a paid training and leadership program designed to prepare under-served young adults (ages 18-25) for living wage jobs in the rapidly expanding Green Economy. Their hands-on curriculum combines community service projects, life skills training, and on-the-job experience in order to provide GO members with everything they need to launch successful careers in promising fields like green construction, clean energy, recycling, ecological landscaping and restoration, and sustainable agriculture.

Golden LEAF Foundation (Non-Profit)

www.goldenleaf.org

The Golden LEAF Foundation, a nonprofit corporation, was created in 1999 to receive one-half of the funds coming to North Carolina from the master settlement agreement with cigarette manufacturers. In turn, the Foundation is helping North Carolinians make the transition from a tobacco-dependent economy through grants and investments that will positively affect the long-term economic advancement of the state. It gives priority in its grantmaking to tobacco-dependent and economically distressed counties.

Handmade in America

www.handmadeinamerica.org/

HandMade in America, works to develop community strategies that will enhance our region's role nationally and internationally within the handmade field. We work to implement environmentally sustainable economic solutions that emphasize the craft industry, enhance opportunities in the marketplace, and develop entrepreneurial strategies for the region's crafts artisans.

Interstate Renewable Energy Council

www.irecusa.org/

IREC, formed in 1982 as a non-profit organization, supports market-oriented services targeted at education, coordination, procurement, the adoption and implementation of uniform guidelines and standards, workforce development, and consumer protection. IREC's mission is to accelerate the sustainable utilization of renewable energy sources and technologies in and through state and local government and community activities.

Mountain BizWorks

www.mountainbizworks.org

Mountain BizWorks offers training, technical assistance, and loans to small businesses in WNC. Our Green Biz Alliance provides green-oriented small business owners with opportunities for networking, seminars, and workshops designed to increase their business potential. Mountain BizWorks also maintains a Green Loan Fund specifically aimed at green business owners.

North Carolina Biofuels Center

www.biofuelscenter.org

The long-term task of the Biofuels Center of North Carolina is to develop a statewide biofuels industry to reduce the state's dependence on imported liquid fuels. The goal of North Carolina's Strategic Plan for Biofuels Leadership is that by 2017, 10% of liquid fuels sold in North Carolina will come from biofuels locally grown and produced.

North Carolina Rural Economic Development Center - Sustainable Communities Initiative

www.ncruralcenter.org/research/sustain.htm

Provides technical assistance, funding, and a leadership training program for sustainable development; Has started the NC STEP program - North Carolina Small Towns Economic Prosperity Demonstration Program; some grant funds available.

North Carolina Sustainable Energy

www.enrgync.org

NCSEA is a 501c3 non-profit membership organization of individuals and businesses interested in the many aspects of sustainable energy. NCSEA's main office is located in Raleigh and NCSEA is active throughout the State. NCSEA works to ensure a sustainable future by promoting renewable energy and energy efficiency in North Carolina through education, public policy and economic development.

Project Energy Xchange

www.energyxchange.org/

The mission of EnergyXchange is to demonstrate the responsible use of landfill gas as an energy source for small enterprise in craft and horticulture, and to meet local energy needs. Some joint projects with HandMade in America.

Sustainability Institute

www.sustainer.org

NC-based non-profit with focus on understanding the root causes of unsustainable behavior in complex systems to help restructure systems and shift mindsets that will help move human society toward sustainability. Staff includes biologists, writers, social scientists, system dynamics modelers, and facilitators bringing a wide variety of experiences and skills to our work. Conduct stakeholder-based systems analysis and change projects through consulting, research, workshops, and facilitated systems thinking sessions for partner organizations. Facilitate reflective learning through learning histories, project evaluations and written publications in cross-sector partnerships. Also develop and conduct capacity building

programs for leaders in non-profits, government, and business.

Sustainable North Carolina

www.sustainnc.org

Sustainable North Carolina helps organizations turn the abstract concept of sustainability into practical action through networking, education, services and recognition.

Sustainable Western North Carolina

www.sustainablewnc.org

WNC resource directory housing information on sustainable food, economy, energy, environment, transit, articles, media and networking. WNCGBC is a 501C3 non-profit organization whose mission is to promote environmentally sustainable and health conscious building practices through community education.

Western North Carolina Green Building Council

www.wncgbc.org

WNCGBC is a 501C3 non-profit organization whose mission is to promote environmentally sustainable and health conscious building practices through community education. Their main goal is to educate homeowners, builders and architects on the benefits of: creating energy efficient buildings, increased use of alternative energy sources, sustainable development using green building materials, decreasing use of natural resources, preserving topsoil and trees, reducing storm water runoff.

Other

Advantage West (Economic Development Commission)

www.advantagewest.com

Advantage West is a non-profit public-private partnership whose primary focus is marketing the North Carolina mountains to corporations seeking to relocate or open a new facility, expand an existing business within our region, and those who might otherwise improve the quality of life for citizens within our region through activities such as filmmaking, entrepreneurship and tourism.

Blue Ridge Angel Investor Network (Investment Network)

www.brainc.com

Blue Ridge Angel Investor Network is a group of individual accredited angel investors. Its mission is to provide opportunities for members to obtain outstanding financial returns by investing in innovative companies with a presence in western North Carolina or a willingness to relocate or expand to the region, and that have intellectual property, job creation potential and realistic exit strategies.

Self-Help Credit Union (Banking and Lending)

www.self-help.org

Self-Help is a not-for-profit lender to small business. Operating from regional offices located in seven North Carolina cities, Self-Help welcomes opportunities to work collaboratively with other business assistance providers throughout the state. Self-Help especially seeks lending opportunities that have potential to generate Triple Bottom Line results: (1) creating economic opportunity and (2) promoting social equity, while also (3) producing environmental benefits.

Natural Capital Investment Fund (Banking and Lending)

www.ncifund.org

Natural Capital Investment Fund provides debt and equity financing to small and emerging natural resource-based businesses that will advance sustainable economic development throughout North Carolina. NCIF's business clients are predominantly located in economically distressed rural communities and are unable to access capital from traditional sources.

Councils of Government

North Carolina Councils of Government

www.ncregions.org

Regional councils (COG's) are multi-county planning and development agencies serving different areas of the state. Membership in these councils is voluntary. In North Carolina, 17 councils serve regions that share similar economic, physical and social characteristics. Regional councils have been operating in the state since 1972 although many were organized long before the official designation. Their function is to aid, assist and improve the capabilities of local governments in administration, planning, fiscal management and development.

Listed below are examples of regional COG's program assistance for the green sector and local governments, but you can find out more by directly contacting the COG in your region using the www.ncregions.org website.

Centralina Clean Fuels Program

www.4cleanfuels.com/

The mission is to reduce petroleum dependence, improve air quality, and expand alternative fuel use and technology. The program promotes, accelerates, and expands the use of alternative fuels in the transportation sector. Working through locally-based government- industry partnerships, the Clean Cities Program seeks to expand the use of alternatives to traditional gasoline and diesel fuel.

Industrial Ecosystems Development Project

www.tjcog.dst.nc.us/regplan/indeco.shtml

Designed to help business people who are looking for ways to cut costs and reduce the use and disposal of natural resources by their businesses and people who are working to create more sustainable communities by identifying ways to turn wastes into useful products and reduce the generation of greenhouse gases in the air, pollution in the water, and trash in the landfill.

Land of Sky Regional Council

www.landofsky.org

Brownfields, Recycling, Waste Reduction Partners, and much more. A four-county, local government planning and development organization in Western North Carolina, LOS serves the counties of Buncombe, Henderson, Madison and Transylvania. For example, Waste Reduction Partners provides a team of highly experienced volunteer engineers, architects, and scientists, provides WNC businesses and industries with no-cost waste and energy reduction assessments and technical assistance.

Region C (Isothermal Planning Council) Brownfields Initiative

www.regionc.org

The Region C Brownfield Initiative (RBI) is a program of the Isothermal Planning and Development Commission, a regional planning and development commission in western North Carolina. The RBI seeks to assist local governments in Cleveland, McDowell, Polk and Rutherford Counties assess, clean up and redevelop brownfield sites.

Region D (High Country Council of Governments)

www.regiond.org

Technical Assistance is provided to local governments in developing concepts for economic development. Grant applications for funding from the Economic Development Administration, Farmers Home Administration, CDBG, and the Appalachian Regional Commission are prepared on behalf of member governments. Additionally, the Council sponsors the High Country Certified Development Corporation which assists small businesses in the region in applying for certain US Small Business Administration loans.

Region E (Western Piedmont Council of Governments)

www.wpcog.org

Technical and grant writing assistance provided to local governments for Brownfields, watershed protection, air quality planning, water quality, water/sewer system financing, mapping, workforce development and more.

Southwest Commission

www.regiona.org

www.mountainlandscapesnc.org

The mission of Southwestern Commission is to improve the quality of life and the environment in its seven county service area of Cherokee, Clay, Graham, Haywood, Jackson, Macon and Swain Counties. In summer 2008, in partnership with the WNC Community Foundation, the SW Commission initiated and conducted a sweeping series of sustainable planning charettes called the “Mountain Landscapes Initiative”. The Mountain Landscapes Initiative “Tool Box” pilot is a three-phase project in the seven westernmost counties of North Carolina to create guidelines for responsible growth. An outreach phase, begun in the fall of 2007, researched key citizen concerns about growth and development. Those concerns shape the agenda for the phase-two workshop, May 13-20, at Western Carolina University. And out of that workshop is a published “Tool Box,” available in phase three.

Triangle Clean Cities Coalition

www.trianglecleancities.org/

A group of communities and private citizens who are trying to increase the use of alternative fuels to reduce pollution and dependence on foreign oil. The mission is to accelerate the use of alternative fuels and advanced transportation technologies to improve air quality and energy security. They build public-private partnerships to promote the use of alternative fuels, alternative fuel vehicles, hybrid vehicles, idle reduction technologies, and fuel economy practices.

Colleges and Universities

North Carolina Community College System

www.ncccs.cc.nc.us/

NC’s community colleges are increasingly providing programs for green job training, alternative fuels, biofuels curricula, small green business incubators, sustainability institutes, and much more for green technology and training. Contact your local community college for find out more – some programs are so new that they might not be posted on their websites.

University of North Carolina

www.unc.edu

North Carolina’s state universities are also adding to their green curricula/resources programs, including energy programs, renewables, building science, fuel cells and advanced vehicle/transportation centers.

North Carolina Small Business and Technology Development Center (University Project)

www.sbtcd.org

The Small Business and Technology Development Center, North Carolina’s Business and Technology Extension Service, is committed to providing knowledge, education and other supportive resources that enable existing small and mid-sized businesses, emerging entrepreneurs and local/state leaders to innovate and succeed. Through the experience and skill of SBTDC staff across our statewide network of 16 university-affiliated offices, we are able to reach and serve a diverse client base and quickly support their changing needs.

North Carolina State University – Institute for Emerging Issues (University Institute)

www.ncsu.edu/iei

The Institute for Emerging Issues (IEI) is a public policy, think-and-do tank that convenes leaders from business, non profit organizations, government and higher education to tackle some of the biggest issues facing North Carolina’s future growth and prosperity. IEI’s program of work on energy looks to a future built on a new energy economy that provides secure, reliable, affordable and sustainable energy sources while promoting economic development.

North Carolina Solar Center (University Center)

www.ncsc.ncsu.edu/default.cfm

Database of construction professionals for energy efficient building; the Green Building technology database that tracks specific construction projects in North Carolina; design reviews, tax forms and information, seminars and professional education, contains link to DSIRE, a database of state incentives for renewable energy; solar energy resources and information; policy research; Industries of the Future program.

North Carolina Wind Energy (University Project)

www.wind.appstate.edu/

North Carolina wind maps; comprehensive information about wind energy, equipment, applications, economics, and training sessions.

Warren Wilson College

www.warren-wilson.edu

Named “Southeast’s Greenest College” by Blue Ridge Outdoors in 2007 and 2008. Provides extensive courses and degrees in green and sustainable careers.

Green-Collar Jobs Overview

www.greenforall.org

Green Collar Jobs Rebuild a Strong Middle Class

Green-collar jobs are good jobs. Like blue-collar jobs, green-collar jobs pay family wages and provide opportunities for advancement along a career track of increasing skills and wages. A job that does something for the planet, and little to nothing for the people or the economy, is not a green-collar job.

Green-Collar Jobs Provide Pathways Out of Poverty

Most green-collar jobs are middle-skill jobs requiring more education than high school, but less than a four-year degree --and are well within reach for lower-skilled and low-income workers as long as they have access to effective training programs and appropriate supports. We must ensure that all green-collar jobs strategies provide opportunities for low-income people to take the first step on a pathway from poverty to economic self-sufficiency.

Green-Collar Jobs Require Some New Skills (and some new thinking about old skills)

The green economy demands workers with new skill sets. Some green collar jobs -- say renewable energy technicians -- are brand new. But even more are existing jobs that are being transformed as industries transition to a clean energy economy: computer control operators who can cut steel for wind towers as well as for submarines; or mechanics who can fix an electric engine as well as an internal combustion engine. We need identify the specific skills the green economy demands. Then we need to invest in creating new training programs and retooling existing training programs to meet the demand.

Green-Collar Jobs Tend To Be Local Jobs

Much of the work we have to do to green our economy involves transforming the places that we live and work and the way we get around. These jobs are difficult or impossible to offshore. For instance, you can't pick up a house, send it to China to have solar panels installed, and have it shipped back. In addition, one of the major sources of manufacturing jobs -- a sector that has been extensively off-shored -- are components parts for wind towers and turbines. Because of their size and related high transportation costs, they are most cost-effectively produced as near as possible to wind-farm sites. Cities and communities should begin thinking now about ways their green strategies can also create local jobs.

A Green-Collar Job Strengthens Urban and Rural Communities

Urban and rural America have both been negatively impacted over the past decades by a failure to invest in their growth -- green-collar jobs provide an opportunity to reclaim these areas for the benefit of local residents. From new transit spending and energy audits in inner cities to windmills and biomass in our nation's heartland, green jobs mean a reinvestment in the community's hardest hit in recent decades.

And By the Way ... Green-Collar Jobs Save Planet Earth

This may be obvious. The "green" in green-collar is about preserving and enhancing environmental quality. Green-collar jobs are in the growing industries that are helping us kick the oil habit, curb greenhouse-gas emissions, eliminate toxins, and protect natural systems.

Green-collar workers are installing solar panels, retrofitting buildings to make them more efficient, constructing transit lines, refining waste oil into biodiesel, erecting wind farms, repairing hybrid cars, building green rooftops, planting trees, and so much more. And they are doing it today. There are already many green-collar jobs in America. But there could be so many more if we focus our economic strategies on growing a green economy.

Our green future will be invented at the local level," said Van Jones, founder and president of Green For All. "The report, "Green Collar Jobs in America's Cities" offers those leaders some of the best thinking and models currently available for building green-collar jobs and the training pipelines necessary for city residents to fill those jobs and claim the promise of living wage careers."

The guide, *Green Collar Jobs in America's Cities* at www.greenforall.org, encourages cities to take a four-step approach.

- First, set a baseline to start from. Identify your environmental and economic goals, and assess local and regional opportunities for achieving those goals.
- Second, develop a green economic development plan. Enact policies and programs to drive investment into targeted green economic activity and increase demand for local green-collar workers.
- Third, ready your workforce. Prepare your green-collar workforce by building green-collar job training partnerships to identify and meet workforce training needs, and by creating green pathways out of poverty that focus on recruitment, job readiness, job training, and job placement for low-income residents.
- And fourth, build on your successes. Leverage your program's success to build political support for new and bolder policies and initiatives.