

**Testimony of Mark H. Ayers, President**  
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**Hearing on**  
**Empowering Workers to Rebuild America's Economy and Longer-Term**  
**Competitiveness: Green Skills Training for Workers**  
**U.S. Senate Health, Education, Labor and Pensions (HELP) Committee,**  
**April 21, 2009**

Senator Murray, members of the Committee, thank you for providing me this opportunity to address the Committee today on the important topic of green jobs and related training initiatives that will help American workers obtain a secure career path as our nation embarks upon a transition to a more sustainable economy.

We appreciate the opportunity to offer the views of the AFL-CIO and the Building & Construction Trades Department, which is an alliance of 13 national and international unions that represent 2.5 million skilled craft men and women in the United States and Canada. I am especially pleased to serve on a panel that follows the presentation by Secretary of Labor Hilda Solis, one of the architects of the Green Jobs Act of 2007 and a tremendous advocate for America's working families.

I speak to you today not only as the President of the Building and Construction Trades Department, but also as a veteran electrician with over twenty five years in the trade, and an acute interest in what our nation needs to do to ensure stable career opportunities for young people, as well as American workers who have been displaced from other industries.

The affiliated unions of the Building and Construction Trades Department have been at the forefront of the green jobs movement for many years. Most recently, we have joined with the AFL-CIO in launching the "Center for Green Jobs," which is designed to partner with affiliated unions to help pave the way for good jobs in a variety of current industries and emerging "green" industries. As part of this initiative our unions are engaging our apprenticeship and training programs to create the skilled

workforce needed for a clean energy future and provide new opportunities to join the middle class for citizens in underserved communities, non-traditional workers, and communities of color.

Our unions have built an unsurpassed nationwide apprenticeship and training infrastructure that incorporates the latest technologies that are becoming an increasing part of everyday life on construction projects of every imaginable type. Whether it is the installation of new, high-efficiency plumbing, HVAC and electrical systems, or the use of new and improved building materials and construction techniques, America's Building Trades Unions are on the front lines of the effort to create, not just green "jobs," but "careers" that will enable Americans from all walks of life to enjoy the peace of mind associated with a stable and prosperous career that offers family-sustaining wages and benefits.

We have all heard the projections that the growth of green jobs is expected to rapidly accelerate in the years ahead. The American Recovery and Reinvestment Act alone is expected to create hundreds of thousands of jobs in energy efficiency measures, smart grid development, home weatherization, building retrofits, and related areas. The law also lays the groundwork for future investments in a lower-carbon economy that will require continued resources - both public and private - and a firm, national commitment to improving the skills and capabilities of many segments of our workforce. The potential creation of millions of green jobs represents a way to stimulate economic recovery while promoting environmental sustainability and reducing the nation's dependence on foreign oil.

I would like to address four themes today, starting with our perspective on how green jobs should be defined. I will then talk about the importance of job quality and our experience with building partnerships with employers, educational institutions, and other organizations. I will conclude with a discussion of some of the new initiatives in which our America's Building Trades Unions are involved.

### **A broad perspective on green jobs**

It is important to define green jobs in broad and non-restrictive terms. Basically, green jobs consist of doing work that increases environmental sustainability and contributes to an economy that reduces the emissions of green house gasses and improves the environment. Much of the recent media attention lavished on green jobs creates the impression that green jobs are associated primarily with renewable energy production, such as the installation of solar photovoltaic panels and the construction of giant windmills. Although this work certainly falls into the category of projects that will help to reduce greenhouse gas emissions, we need to look more carefully, as a practical matter, at the presence of green jobs in many occupations and across multiple sectors of the economy.

Many of these construction projects are likely to be union jobs conducted under some type of collective bargaining agreement. They will involve construction sites, private sector manufacturing companies, public agencies, non-profit organizations, schools, and other workplaces where our members have put their skills to use for many years. When steelworkers use their expertise to manufacture blades for windmills, for example, those are green jobs. When autoworkers build hybrid electric vehicles, those are green jobs. When highly skilled construction tradesmen and apprentices install energy efficient windows in a building, upgrade the insulation around pipes, or install and maintain high efficiency boilers, those are all green jobs. More than 32,000 Teamsters work in the sanitation and recycling industry across the country, working with environmentalists to reduce air and water pollutants, and conserve natural resources. Those are green jobs, too.

The expansion of green jobs is a continuous, dynamic process that occurs not only *across* many industries, but also *inside* the jobs themselves as many are evolving to become more and more “green” as time goes on. Using this perspective, green jobs include transformed jobs that require new or upgraded skills as new processes are introduced, new technologies come on line, or government policies change to place a greater emphasis on electricity generation through zero- or low-carbon production sources.

Jobs that use existing skill sets to remediate and redevelop environmentally distressed properties, for example, have been around for decades, and thousands of our union members in the building and construction trades have worked on them. Unions have long-standing partnerships with the National Institute of Environmental Health Sciences, the NIEHS, and 18 consortia that include universities and community-based organizations. These consortia involve unions such as the operating engineers, the auto workers, the laborers, the fire fighters and many others in operating training programs for minority workers and others. Between 1988 and 2006, more than 111,000 workers were trained in the clean-up of hazardous waste. These activities contribute significantly to our nation's environmental quality and the expansion of green jobs.

Today, all across the country, our building and construction trades state and local councils, and our affiliate local unions, are closely attuned to the demands and needs of our signatory contractors. Although the economic crisis has slowed down this process, what we are seeing is a gradually rising demand among investors for homes, commercial buildings and large projects that are more environmentally-friendly and which are engineered to produce less greenhouse gas and use energy resources more efficiently. As our signatory contractors win bids for this sort of work, there will be an even greater need for apprentices and journey persons to fulfill the skilled craft manpower needs of these employers which will ultimately lead to our members gaining increased prospects for more work and additional avenues to improve their skills and capabilities. Our education and training programs are currently structured to respond accordingly by adding new curricula and other specialized components to our existing apprenticeship training programs, for the expressed purpose of having customized training classes for our journey-level workers that meet the skilled workforce needs of owners and contractors in our industry.

In the electrical field, for example, locals of the International Brotherhood of Electrical workers, the IBEW, are involved in a wide array of work on renewable energy projects, from wind towers in Iowa to wiring solar panels in Colorado. In Oregon alone,

more than 1,300 IBEW electrical workers have been training in the installation of photovoltaic panels. In San Diego, California, where IBEW Local 569 represents more than 2,000 electrical workers, the union works with 24 contractors who install solar panels on a wide variety of buildings. The joint apprenticeship program associated with Local 569 is building toward the future, giving all apprentices some exposure to work in renewables during their 5-year program. The membership of that local is very diverse, with Hispanics comprising 40 to 50 percent.

### **Green jobs as good quality jobs**

To assure the broadest possible economic benefits from green investments, it is critical that government policy associate green jobs with high quality jobs that pay family-sustaining wages and benefits, and include upwardly mobile career pathways. Workers need jobs that not only provide immediate employment, but also place them on a career path that will enable them to earn higher wages and salaries as they gather new skills and capabilities to adjust to new technologies and the emergence of new industries. Again, the American labor movement has been at the forefront of worker training and systematic skill upgrading for generations, stretching back to the early parts of the 20<sup>th</sup> century when our unions first began to advocate for local public school systems, and for the passage of federal vocational education initiatives. America's Building Trades Unions, invest over seven hundred million dollars each year to assure that our contractor employers have access to the safest, most highly trained and highly productive workforce known to man.

Within the construction sector, joint apprenticeship programs can and should be the model upon which green jobs training is built. Registered apprenticeship programs allow workers to earn a wage while learning the skills necessary to move into not just jobs, but careers that pay family sustaining wages. The apprentice model of skill acquisition is distinctive because it integrates systematic on-the-job training, guided by an experienced master-level practitioner, with related classroom instruction. An estimated 490,000 apprentices were active in registered programs in 2003 (Glover and Bilginsoy 2005), an increase from the 283,000 enrolled in 1990 (Bilginsoy 2003).

While the US government has identified more than 800 occupations as apprenticeable, the bulk of active apprentices were being trained in 2003 as electricians, carpenters, pipe fitters and other the occupations that comprise the building and construction trades. Though some programs are sponsored by non-unionized employers, the majority - 70 percent - of registered apprentices participated in labor-management programs that are governed by an infrastructure of local Joint Apprenticeship and Training Committees (JATC) and funded through collectively-bargained contributions to local tax-exempt trust funds.

Unions and some firms have introduced innovations to maintain the relevance of apprenticeship to changing workforce and industry needs. National joint training trust funds have been established to standardize curricula, which has had the effect of increasing the uniformity of training nationwide, and encouraging local funds to offer skill upgrading for incumbent workers. Annual programs at universities are held to improve the skills of apprenticeship instructors, research industry trends, and launch apprenticeship programs for emerging occupations in, for example, energy conservation and environmental services. Dual enrollment systems have been created to enable apprentices to earn college credits and progress toward higher degrees, fostering career advancement and helping to attract more highly qualified applicants to selected fields.

In other sectors of the economy, we firmly believe that green jobs training should build on existing training infrastructure, to the extent that it exists, in order to maximize efficiencies and keep down costs. Where there are gaps in the existing training infrastructure, other existing workforce development systems that have demonstrable success should be used as a model for the delivery of green jobs training.

A number of federal initiatives have been passed in recent years designed around green jobs and associated workforce development issues. I imagine that this will be a continuing trend in the years to come as the nation grapples with an economy that

is moving away from a traditional, high greenhouse gas emitting economy, toward a model that maintains vigorous economic growth while being more eco-friendly.

In 2007, as a part of the Energy Independence and Security Act, the Congress enacted and President Bush signed into law the Green Jobs Act of 2007. More recently, the American Recovery and Reinvestment Act included \$500 million to fund training activities research, labor exchange and job training projects that prepare workers for careers in the energy efficiency and renewable energy industries specified in the Green Jobs Act. This law lays a foundation upon which successful workforce development and green jobs training can be based. Such a foundation includes market research, partnerships, and workforce development programs that can place disadvantaged workers onto pathways out of poverty and into secure careers that can help build families and communities.

### **Building Partnerships**

When it comes to training, the Building and Construction Trades Department and our member unions are not only believers in forming partnerships. We are practitioners. One of the predominant features of most of our union's training structure is the partnerships that exist between the workers and our contractor employers. Even outside the construction sector, many unionized employers rely on labor/management committees to help develop and deliver needed training to workers.

As permitted and encouraged by the Green Jobs Act, other outside partners are often included within our training structures. Partnerships with community colleges, community-based organizations, environmental groups, and others are commonplace. These existing relationships and the established training infrastructure allow for the efficient and cost effective delivery of training services. In Cleveland, Ohio, for example, the Painters and Allied Trades union has forged a partnership with Cuyahoga Community College to offer a number of courses to painters across the country, including "Interpreting and Bidding Green Bid Specifications."

In many trades, our building and construction unions have enduring partnerships with their management counterparts. The United Association (UA), for example, our union in the plumbing and pipe fitting industry, is a founding member of the Green Mechanical Council, an alliance of manufacturers, skilled professionals, universities, and other organizations dedicated to promoting environmentally friendly equipment and processes that maximize energy efficiency, conserves water, and uses renewable and sustainable fuel sources. The “Green Mech” Council specifies the most efficient systems available for home and commercial applications across the nation.

In March 2008, the UA unveiled a remarkable Green Training Trailer that is touring the country to introduce UA apprentices, journey-level workers, and green building expo participants to renewable energy technologies and sustainable building concepts. The 40-foot-long mobile classroom provides an overview of a number of power generating technologies, including fuel cells, wind power, and solar photovoltaic systems. Visitors to the trailer will be able to gain hands-on experience with these technologies, and take classes that lead towards a Green Awareness Certification. The UA Training Department alone spends \$110 million annually on apprenticeship training, skill upgrading and other skill development activities.

Members of the Bricklayers and Allied Craftworkers (BAC) union are skilled in the practice of “sustainable masonry” that uses a variety of building materials that meet environmental specifications. The Bricklayers have had a long-standing partnership with contractors through the International Masonry Institute (IMI), a joint labor management training and production organization that has increased its focus on sustainable practices such as proper waste disposal and material recycling. The BAC and IMI develop partnerships with specific companies that produce advanced building materials that promote sustainability and create jobs for highly skilled craft workers. One such company is SEALTECH Block, which manufactures - in two U.S. facilities- construction blocks that are inherently water resistant, have a smooth texture (which reduces the need for maintenance), and contain 10 percent recycled material. SEALTECH blocks exceed environmental standards and have been certified to earn LEED points when

installed in facilities. Union bricklayers are certified to install products by SEALTECH through BAC/IMI training programs. Once installed by union craft workers, SEALTECH guarantees the integrity of their product. This labor-management alliance reveals how sustainable building creates jobs for American manufacturers, benefits construction clients—such as Target stores, which has used SEALTECH products in multiple locations—and expands employment opportunities for high skill, union craft workers making family-sustaining wages.

In addition, these partnerships around green jobs are not limited to the building and construction trades. They stretch into manufacturing industries, the service and government sector, and high technology communication firms.

The International Association of Machinists and Aerospace Workers (IAM), for example, are aggressively working to create government policies and implement business practices that promote investment in the modernization of the infrastructure and the creation of new green jobs. The IAM was instrumental in the development of the Connecticut Hydrogen-Fuel Cell Coalition, a business development organization composed of representatives of the state's fuel cell and hydrogen industry, labor, academia, state agencies, and other stakeholders. At UTC Power in South Windsor, Connecticut, IAM members in Local 1746/District 26 manufacture fuel cells for on-site power and transportation systems. At this facility, they work with scientists and engineers to build prototypes for the next generation of hydrogen fuel cells. Fuel cells from UTC Power that were built by IAM members are now being used on zero emission hybrid buses operated by Connecticut Transit and AC Transit of Oakland, California. The 40-foot hybrid fuel cell buses have zero harmful tailpipe emissions and achieve twice the fuel economy of a regular bus.

In Washington State, for example, the Machinists union is working with Edmonds Community College to develop composite materials training programs for workers in the aerospace manufacturing industry. The college has an extensive selection of courses in Materials Science Technology, leading to a two-year degree and the opportunity to four-

year certification in industrial engineering or technical management. These new high-tech materials are critical for reducing aircraft weight, which in turn reduces fuel consumption.

Partnerships such as these help American industries recognize new trends in technology development and deployment, along with innovative construction and production techniques which, in turn, necessitate upgrades in training programs so that workers have the appropriate skill sets that range from basic skills through advanced technical training in specific technologies.

### **Pathways out of Poverty and new initiatives**

The Green Jobs Act provides for grants to be made to eligible entities to carry out training that leads to economic self-sufficiency. The Act directs the Secretary of Labor to give priority to entities that serve individuals in families with income of less than 200 percent of the sufficiency standard for the local areas where the training is conducted. Eligible entities for these grants include community-based nonprofit organizations, educational institutions with expertise in serving low-income adults or youth, public or private employers, and labor organizations.

Providing workers from disadvantaged communities the opportunity move into higher wage occupations is perhaps one of the greatest potential benefits of creating an economy that lowers greenhouse gas emissions. Sound investments into workforce development and training can help to revitalize depressed communities, restore financial security to millions of workers, while helping to create a skilled and efficient workforce for American employers.

We strongly believe that the creation of green jobs should address issues of social equity and should lead to new employment opportunities for individuals from economically distressed or disadvantaged communities. The expansion of green jobs should help those who have been disproportionately impacted by the economic crisis and have been historically excluded from the benefits of economic growth and development. Training should be provided by legitimate and established programs that

lead to lifetime careers, require high levels of skills, and offer high levels of compensation to sustain families and communities. Union-based and certified apprenticeship programs, as well as new initiatives, should play a central role in meeting the workforce development demands of the economic recovery.

One of the most promising new initiatives in which we are involved is called the “Emerald Cities” Project. For the past few months, America’s Building Trades Unions have been collaborating intensively on a national basis with community and green organizations to create “high-road” jobs around green building retrofit activities in targeted cities around the country.

We hope the Emerald Cities initiative will provide models for how community and labor coalitions can help green our cities while providing family-sustaining career pathways for workers from disadvantaged communities.

Further, we hope that the Emerald Cities project, as well as many other initiatives that seek to marry the demands for a less-carbon centric economy with the potential for significant job growth, will become centered upon the advantages that are inherent in Community Workforce Agreements, or as they are more commonly known - project labor agreements.

Community Workforce Agreements (CWA) are pre-hire collective bargaining agreements that establish the terms and conditions of employment on one or more construction projects.

The value of a CWA revolves around the fact that construction employers typically do not have a permanent workforce. This makes it difficult for them to predict labor costs when bidding on contracts and to ensure a steady supply of labor on contracts being performed. Challenges also arise due to the fact that construction projects typically involve multiple employers at a single location. A labor dispute, or skilled manpower shortage, involving one employer or craft can delay the entire project.

A lack of coordination between and among contractors and sub-contractors, or the uncertainty about the terms and conditions of employment of various groups of workers can create frictions and disputes in the absence of an agreed-upon resolution mechanism.

From the perspective of the growth and development of green jobs, CWAs offer significant social benefits as well. In many instances, project owners and community leaders and building trades unions frequently negotiate CWAs to address a wide range of local and social needs. CWAs can, and do, ensure the hiring of local residents. And many recent CWAs are instituting community outreach efforts designed to enroll young students in pre-apprenticeship and apprenticeship programs that are designed to place them on a path to a secure career in the skilled trades. And because local workers are utilized, the project's payroll stays in the community and contributes to its prosperity.

Rebuilding the American economy and rebuilding the middle class represent enormous challenges tied to other vexing problems confronting the United States and the world, including urban poverty, growing unemployment and under-employment, environmental degradation, and the need for both energy independence and economic sustainability.

These challenges cannot be met and these problems cannot be solved without the active and enthusiastic participation of America's Building Trades Unions, working in partnership with other progressive social forces in our society.

We look forward to this challenge. We are committed to its success.

#### **References**

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