

WHY GREEN ADVANTAGE MAKES SENSE FOR ELECTRICAL CONTRACTORS

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Topics

- What Does Green Advantage Do
- Benefits and Efficacy of GA Certification
- Certification Information
- Preparing for the Exam
- Organizational Information

Is Green-Collar Jobs a fad?

- A good business person is, in part, a good prognosticator of the public's future desires
- Fortunately, the public has always been into clean water; fresh, breathable air; healthy and organic foods (well, for the most part—the occasional McDonald's aside); open spaces like parks and forests; and reusing nature's gifts like woods, metals, water, etc.
- The public's return to these clean living concepts has been renewed because of Al Gore, countless environmentalists who've championed a return to these goals for decades, an ability to broaden the field to include business—from their practices to their ability to make money at providing the public healthier products and services, and numerous other people across a wide spectrum of interests, politics, and institutions.
- President Obama has made green-jobs the central focus of his economic policies and goals for the next four- to eight-years.

What's the Problem?

- U.S. buildings consume almost 2/3 of total electricity, use 12% of potable water, generate 2.8 pounds per person of construction waste every day, and contribute over 30% of total greenhouse gas emissions.*
- This trend must be reversed to stem global warming and crippling pollution.
- Coinciding with the problem of massive pollution and waste generated by the industry, demand for green building in the U.S. outpaced supply as of early 2007.*
 - Mayors around the country are lamenting how far behind their cities are in constructing green buildings because their aren't enough people capable of putting up these buildings

*Source: Minnesota Pollution Control Agency

What's the Problem?


- For too long environmental justice has not encompassed enough Americans, especially minority Americans.
 - Asthma rates are higher among minorities, as a percentage of their respective populations.
 - Dilapidated schools are more commonly found in minority communities, so the air quality in these schools are lacking and the materials used to build them more contain VOCs (volatile organic compounds like formaldehyde, for example).
 - Municipal refuse areas are in minority communities at a higher percentage rate because land tends to be cheaper, but disregards that minority children, for example, play near these areas.
 - The water quality is affected by having trash refuse nearby.
 - The odor emanating from a trash plant is so putrid it drives down the quality of life in any community.

Certifying Green Builders Nationwide

WHAT GREEN ADVANTAGE DOES

Green Advantage®

- Offers an exam for building practitioners to demonstrate their knowledge in and become certified to build green commercial and residential buildings
- Provides a third-party, national environmental certification for building-related practitioners
- GA-certified practitioners must renew their certification every three years





Certification Types

- Commercial 
- Residential 
- C/R 




Differs from LEED® Certification

- **GA:** Focuses on people
 - Certifies *builders*
- **USGBC:** Focuses on large scale commercial buildings, mostly
 - LEED: *Building* certification
 - LEED AP: Certification for people *who certify* buildings
 - Putting more resources and effort behind their residential building program
- **Green Globes:** Focuses on small- and medium-sized buildings





Green Advantage Audience

- Contractors
- Sub-contractors
- Tradespeople
- Architects
- Engineers
- Unions
- Developers
- Realtors
- Attorneys
- Planners
- Code Officials

90%
significant growing interest

emerging interest

Playing a Key Role in the Green Building Industry

BENEFITS AND EFFICACY OF GREEN ADVANTAGE CERTIFICATION



6 Thematic Areas

- Green Building Rationale
- Site Considerations
- Energy Efficiency
- Water Efficiency
- Indoor Air Quality
- Material Selection

Integrated Design & Construction






Benefits of Green Advantage Certification

- Third-party, nationally recognized credential
 - Staying ahead of government regulations
 - Responding to growing consumer demand for credentialed green builders
 - Responding to building certification requirements
 - Prepares you for LEED AP exam
 - Positioning for projected 5 million new green jobs



HOW GREEN PLAYS A ROLE IN OUR LAWS, REGULATIONS, AND CODES

- Many cities are now requiring certification for builders (Chicago, Dallas, Philadelphia, D.C., etc.)
- The Stimulus Bill enacted earlier this year invests heavily in green education
- Cap and Trade Bill will require companies to reduce environmental impact by 2050
- Municipalities, which are responsible for a significant amount of new buildings investments, are putting into their specifications requirements that contractors have to have workers who are certified to build green buildings



HOW GREEN PLAYS A ROLE IN OUR LAWS, REGULATIONS, AND CODES

- American Clean Energy and Security Act:
 - Promotes clean energy
 - Mandates cap on carbon emissions through 2050, designed to reduce carbon dioxide and greenhouse gas emissions to level
 - CBO projects the program will generate revenues between \$50 to \$300 billion.
 - Spending \$150 billion will create 1.7 million jobs, according to Center for American Progress report.
 - 16.7 jobs created per \$1million spent on clean energy programs vs. 5.3 jobs for the same spending on fossil fuels expenditures.



Customer Benefits

- Innovation Credit for Green Advantage® certified workforce
- Qualify for
 - NAHB Green Building Verifier
 - National Affordable Housing Management Association
 - Green Property Management training provider



Customer Benefits

- ✓ Decreased operating costs
- ✓ Healthier work environments
- ✓ Higher productivity
- ✓ Increased marketability
- ✓ Higher building values
- ✓ Way to earn pure profit for each project



BENEFITS TO ELECTRICAL CONTRACTORS

- 25-33% of the questions on the GA Exam covers energy-related issues, such as:
 - Wiring buildings to realize green practices
 - Renewable energy techniques and applications
- On-the-job Applications:
 - Grid-type systems
 - Net-metering
 - Renewable Energy Credits
 - Feed-in Tariffs



University of Florida Study of Green Advantage Effectiveness

- Dr. Charles Kibert, one of the U.S.'s most noted and respected environmentalist and academician, recently conducted a study to assess whether Green Advantage's certification program is effective in producing greener buildings and certified personnel.
- Kibert has no involvement with Green Advantage. He is not on our board; he doesn't serve as an employee or contractor of Green Advantage. He is employed solely by the University of Florida. So this was an independent review.



University of Florida Study of Green Advantage Effectiveness

- Dr. Kibert and his team conducted the study earlier this year and released his findings about a month ago.
- A variety of commercial project types were reported: commercial office, automobile dealership, higher education, computer research building, school lab, and retail.
- Of the participants Dr. Kibert interviewed in furtherance of his study
 - All are LEED AP
 - All but one is a General Contractor; the other is an Architect
 - 66% are Green Advantage-certified; two teach for independent trainers preparing people for the GA exam
 - All had experience with LEED projects ranges from 1 to 24 projects
 - All have received LEED Certification for projects cited in the survey, including 6 having received Gold, one attained Silver, & two others received the basic certification
 - All have participated in LEED project(s) for a minimum of one year



University of Florida Study of Green Advantage Effectiveness

- Dr. Kibert's study noted some particular effects worth emphasizing.
 - For example, the notion of a project's aspiring to be LEED Silver, but attaining LEED Gold due to the attributes of GA Certified personnel is worth highlighting.
 - Another example is the observed increase in cooperation that was mirrored in reports of working collaboratively. Understanding of the rationale and best practices that promote integrated design and construction has a direct effect on the health and environmental improvements that were recognized by virtually all of those surveyed.
 - A third example relates to cost savings. Although more nebulous savings were cited in the construction process, the potential for crews to identify ways to cut costs and produce buildings with higher predicted performance were exhibited more frequently on projects achieving or exceeding the thirty percent (30%) threshold.



University of Florida Study of Green Advantage Effectiveness

- The study went on to conclude:
 - With general contractors potentially having the ability to exceed the level of certification intended for a given project at no extra cost with the utilization of GA Certified personnel, should there be a change in green contracts? Perhaps owners and architects could encourage projects to be greener with a bonus stipulation in the contract if the GC works within the contract award amount and attains a higher level of certification or other environmental or health performance targets.
 - Conversely, if the minimum certification level is not achieved using Green Advantage personnel, a contract penalty could occur. A risk/reward contract could further incentivize the GC and subcontractor personnel to share the health and performance benefits with the owner.



U of F Study of Green Advantage Effectiveness

- 89% recommended the Green Advantage LEED ID Credit for use on another LEED Project
- The findings also found that 89% of those surveyed recommended the Green Advantage LEED ID Credit for use on a non-LEED Project;
- 100% gave an overall rating for positive environmental benefit of 4 or 5 with an average rating of 4.44;
- 78% stated that Green Advantage-certified workers frequently spotted problems that would affect green building performance;
- 67% stated that the credit's required 30% personnel threshold is acceptable with the remainder (33%) suggesting it be higher;



U of F Study of Green Advantage Effectiveness

- 89% saw positive impacts in terms of health for employee occupants, with 67% of respondents giving a top rating of 5;
- 67% gave an overall rating for positive health impact of 5 with an average rating of 4.56;
- 56% gave a positive health impact for workers on site of 5 with an average rating of 4.44;
- 67% stated that Green Advantage-certified workers in their experience worked more collaboratively together, yielding a higher green affect



U of F Study of Green Advantage Effectiveness

- The quantified responses and observations from the survey participants support the following conclusions:
 - 1) The use of GA-certified personnel is beneficial to the construction and performance of green buildings.
 - 2) Achieving the GA LEED Innovation Credit significantly improves the likelihood of realizing increased environmental benefits.
 - 3) Achieving the GA LEED Innovation Credit significantly improves the likelihood of realizing increased health benefits among workers and occupants.



U of F Study of Green Advantage Effectiveness

- 4) Increasing the threshold of personnel required under the GA LEED Innovation Credit brings additional environmental and health benefits.
- 5) Desirable attitudinal differences among crew members can be attained for projects that use GA-certified construction personnel
- 6) Using GA Certified personnel can significantly improve environmental and health measures for LEED projects as well as other projects that may not aspire to attain LEED Certification.



Thanks for Your Attention

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