

# THE GREENING OF REGISTERED APPRENTICESHIP IN FLORIDA

## *Impact of Green Jobs on Registered Apprenticeship*

Green Seminar Minutes  
Dave Thomas Education Center  
Pompano Beach, Florida  
Thursday, June 9, 2011

### **The Greening of Registered Apprenticeship in Florida**

This is the eighth of a series of green workshops being held around the state to identify the progress being made in the “greening” of Florida apprenticeship programs.

The following individuals representing various governments, industry, and construction affiliations in the Pompano Beach area attended the workshop:

#### **Green Apprenticeship Guest List**

| <b>Name</b>        | <b>Organization</b>         |
|--------------------|-----------------------------|
| John McHugh        | Miami Electrical JATC       |
| Melissa Italiani   | Florida Air Apprenticeship  |
| Steve Sparks       | Florida Air Apprenticeship  |
| Mauricio Robles    | OPCMIA United Tr. L 93      |
| Ruth Tirado        | ABC Institute               |
| Ken Hartwig        | Palm Beach State College    |
| Izett R. Scott     | AGC                         |
| Valvery Hillsman   | D.O.E./Apprenticeship       |
| Patrick McLaughlin | McLaughlin Management, Inc. |

This session was organized by Valvery Hillsman, Department of Education/Apprenticeship Section/Region Representative.

#### **Introduction to Apprenticeship and the Green Initiative**

Pat McLaughlin, Facilitator, began the meeting explaining what apprenticeship is and how it benefits workforce systems and employees. McLaughlin then described the meaning of the “green economy”. For many of this session’s participants, this was **not** their first foray into the green movement as was the case in previous sessions. However, this was an awareness session for them of the financial opportunities and educational resources available to learn about the green initiatives within the construction and “green” industries.

The green economy is rooted in the development and use of products and services that promote environmental protection and energy security. This is comprised of industries and businesses engaged in:

- Energy efficiency
- Renewal energy
- Preventing and reducing pollution
- Mitigating or cleaning up pollution

There really isn't a separate "green economy" with its own set of industries and occupations. Instead, we have one economy that is becoming greener. Markets may be responding well to consumer demand for more environmentally friendly products and services.

Our state government has also jumped on the green initiative bandwagon. Several governmental bills currently focus on green job training and development:

Green Job Training (Sec. 422) – This bill increases funding authorization for the Energy Efficiency and Renewable Energy Worker Training Program.

Green Construction Careers Demonstration Project (Sec. 424A) – This bill directs the Secretary of Labor, in consultation with the Secretary of Energy, to establish a Green Construction Careers demonstration project "to promote middle class careers and quality employment practices in the green construction sector."

Clearinghouse for Vocational Education and Job Training in Renewable Energy Sectors (Sec. 423) – This bill directs the Secretary of Labor, in collaboration with the Secretaries of Energy and Education, to establish a publicly available web-based information and resources clearinghouse.

Clean Energy Curriculum Development Grants (Sec. 421) – This bill authorizes the Secretary of Education to award competitive grants to partnerships for the creation of green curricula.

Low Income Community Energy Efficiency Program (Sec. 264) – This bill authorizes \$50 million for each of the fiscal years 2010 through 2015 for a competitive grant program.

McLaughlin then introduced the group to the NCCER – the National Center for Construction Education and Research.

## **NCCER and the Green Initiative**

McLaughlin reviewed a presentation from the NCCER – the National Center for Construction Education and Research. NCCER is a not-for-profit 501 (c) (3) organization affiliated with the University of Florida. It is the leading source of workforce development resources for the construction, maintenance and pipeline industries.

The presentation notes that green jobs will bolster employment in the near future, especially in the construction and manufacturing arenas.

This research also indicates that the following jobs will be required to build the U.S. green economy:

1. Carpenters
2. Heavy Equipment Operators
3. Construction Managers (2)
4. Electricians (3)
5. HVAC
6. Industrial Machinery Mechanics
7. Industrial Truck Drivers (3)
8. Insulation Workers
9. Iron & Steel Workers
10. Metal Fabricators (3)
11. Millwrights
12. Roofers
13. Sheet Metal Workers

**SOURCE:** [www.greenjobsnow.com/hq/Excerpt-Green-Jobs-PERI.pdf](http://www.greenjobsnow.com/hq/Excerpt-Green-Jobs-PERI.pdf)

The six energy efficiency and renewable energy strategies being researched include:

1. Retrofitting buildings to increase energy efficiency
2. Expanding mass transit & freight rail
3. Constructing “smart” electrical grid transmission systems
4. Wind power
5. Solar power
6. Advanced biofuels

**SOURCE:** [www.americanprogress.org/issues/2008/09/green\\_recovery.html](http://www.americanprogress.org/issues/2008/09/green_recovery.html)

The NCCER Green curriculum and resulting Green Advantage certification is available to existing apprenticeship program as an add-on through the NCCER organization.

You may read more about these exciting breakthroughs in the NCCER presentation provided at the end of this report.

The Pinellas Weatherization Training Center was another opportunity presented for existing apprenticeship programs to increase their awareness and involvement in green training. The Pinellas Center’s goal is to train Florida’s workforce for green jobs and to assist Florida in weatherizing more than 19,000 homes between 2009 and 2012.

The Pinellas program offers three certificate courses:

1. Weatherization Installers
2. Weatherization Building Energy Auditors, and
3. Building Performance Institute (BPI) Field Proctors.

The NCCER and Pinellas programs exemplify the overarching theme of these green sessions: “For registered apprenticeship to help local apprenticeship “Green” their programs”.

McLaughlin then posed the following questions to the group:

- What are Florida Registered Apprenticeships doing now?
- What are Florida Registered Apprenticeships planning to do?
- What can the Registration Agency do to assist Your Programs?

## **What are Florida Registered Apprenticeships doing now?**

### **HVAC Industry**

The first individual to comment was Steve Sparks of Florida Air Apprenticeship. Steve stated that Florida Air Apprenticeship has for some time embraced the green initiative especially in light of the government regulations regarding the use of non-toxic coolants. First-year apprentices are required to become EPA certified. However, the industry at times seems reluctant to embrace the green initiative. Steve and his partner started requiring EPA certifications some 15 years ago. They look at high efficiency equipment not as the exception but as the norm, and have been promoting its use for 15 years. They also ensured that the 12 recent graduates of the HVAC program at the local high school are also EPA certified.

Steve agreed there are opportunities to open this up and use other grants to attract a wider audience. Again, in terms of refrigerant coolants, Steve has always been a “tree hugger” long before the green initiative became the buzz word, or the thing to do. Steve and his group are also cognizant of air quality issues within the environment.

Steve commented on the presentation PowerPoint slide that compares the apprenticeship graduate to the college graduate, in terms of educational expense. His son just applied to the University of Florida and they were surprised at the amount of student loans students expect to graduate with. (Some are as much as \$100,000 plus interest.) Not a great graduation gift. With a \$30,000 a year job, such loans may take some time to repay. Perhaps the Florida Department of Education should weave this information into their promotion presentation for construction vocations.

Steve’s comments further verify that the air conditioning apprenticeships have long been ahead of the game in terms of the green initiative; and very much aware of indoor air quality issues. There have been incentives not just to the trades, but to the final consumer to upgrade to the more efficient and environmentally-friendly energy equipment.

### **Plastics and the Cement Mason Industry**

According to Mauricio Robles, pervious concrete is a great material to work with when educating masonry apprentices. This type of concrete is good for parking areas, as it acts like a honeycomb – the water can go right through it. It surrounds the paving surface to allow the water to drain off.

This group also recycles marbelite, which is used for plastering. Two manufacturers currently have agreements to recycle clay products. They can crush and grind the clay to use for fertilizer. Another green initiative is the crushing of ceramic concrete – again, to be used for fertilizer of plants. This ceramic concrete is a man-made concrete, first manufactured by the government in 2001 to encapsulate waste. A company then procured a patent, did some research, and developed ceramic concrete. It has a rating of 3000 degrees resistance per cubic inch, with actual weight resistance of 4000 psi.

They are also working on “green crete”, which has 5000 psi. Green Crete is a lot better because it is more cost efficient. It is non-Portland cement. Portland cement is high energy – you have to mine it, grind it, and then process it. Both the ceramic concrete and the green crete were tested at 3000 degrees with fire and everything tested o.k. The material stays pure under water, and petrifies wood.

Ruth Tirado mentioned they are updating their curriculum at the ABC Institute to promote green education. They are well aware of the need to “pay it forward” by educating students and getting them accustomed to this type of lifestyle.

And that brings us to NCCR and the curriculum they offer. Educational facilities can enhance current programs by adding these national programs, specifically NCCER’s Build- Train- Green Program. (Explained in the PowerPoint Presentation.) NCCER provides opportunities to extend apprenticeship programs – HVAC, electrical, construction – through programs such as NCCER’s Build- Train- Green.

McLaughlin encouraged participants to develop strategies to take advantage of the NCCER programs to promote green initiative and the green economy. Stimulus monies have been dedicated to youth building programs, such as the Boys and Girls Club. This is the time to pursue the grant money. The Banner Center for Construction in Gainesville is just one example of a facility that recently acquired such grants.

The Green Jobs Act of 2007 was the initial impetus to implement these programs. An example is the Job Corps Program in Pinellas County. NCCER has done a terrific job putting in the professional curriculum, both text and web based. You simply have to pay for it. NCCER’s materials are all encompassing and designed to supplement your curriculum.

As an instructor you do have to become certified by an accreditation center. You can request certification information from NCCER, who will be more than happy to accommodate you. Just call them. You will get the full package – accreditation, the necessary curriculum, supplementary materials, study guides. You don’t have to develop the curriculum; it is already developed for you.

Another program to pursue is the Pinellas Weatherization Training Program. Pinellas County received grant money to put this program together. It is not limited to Pinellas County. It can be offered anywhere. The program is “weatherization specific.” The curriculum can be offered with any type of training. It is to promote the green workforce, to create 19,000 jobs. There are three separate study fields: weatherization installation, building energy installation, and building performance field proctors. The Job Corp is prevalent in the Tampa/St. Petersburg area.

With this program you will get 15 CEU hours and you will be accredited. There are grants to pursue these programs. The grants focus on individuals 18 years and older; veterans; and unemployed workers.

If you are interested, please contact James Robinson at (727) 366-7781, or visit the [WorkNet Pinellas under Specialty Programs](#) website. His contact information is also included in your packet of information.

## **What can the Registration Agency do to assist Your Programs?**

McLaughlin then posed the question: “What can the Registration Agency do to help?” McLaughlin referred the audience to the application determination sheet that includes questions used for application to the green programs. The first page of the worksheets details program requirements. The second page provides job descriptions and models for participants to use. It also lists questions the National Department of Labor will be asking when you wish to submit your application to get your program started.

Please refer to the website provided in your information packet for additional requirements for grant requisitions.

McLaughlin asked the group to please let Valvery know of any ways they can help in the pursuit of this green initiative. Also, refer to the list of resources provided. Please know that this initiative was enforced by the National legislation four years ago; so the time to act is now. Many colleges are in this movement, a key one being Indian River State College.

Participants were encouraged to review the information offered online, and also through mobile units that will visit upon request.

A question arose about monies being available for pre-apprenticeship. McLaughlin reiterated that the Gates Act (named after its sponsor Senator Gates) was passed that mandated comprehensive reform of CTE. The law requires that new CTE programs be designed to meet a real workforce need, and that CTE students (High School) should earn high-quality, industry-recognized certifications.

Again, McLaughlin encouraged the group to contact Valvery for further information, and to especially refer to the resources provided in their packets.

## **Conclusion**

The participants expressed appreciation for this discussion about the green movement. Everyone agreed the two key areas to pursue are the environment and energy savings. It is evident there are a lot of opportunities yet to be tapped into. The primary objective of this session was to raise awareness of the green movement – and that was definitely accomplished.

Patrick McLaughlin encouraged participants to research websites on “green construction” for additional information, and to please note the website links to banner green centers in Florida that are listed in the handout. One important link is:

[www.fsec.ucf.edu/en/education/banner/links.htm](http://www.fsec.ucf.edu/en/education/banner/links.htm). In addition, the Solar Energy Center is located at: [www.fsec.ucf.edu/en/](http://www.fsec.ucf.edu/en/).

The final report will be completed by June 30, 2011. As we build this program, information will be provided. Please check our website to keep apprised of opportunities. The slides for today's session will be e-mailed to all participants.

Respectfully Submitted,

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