

Meeting Minutes  
Partner Conference Call  
for  
Southeast Solar Training Network

February 2, 2010

1. Call participants:
  - David Block, FSEC
  - John Harrison, FSEC
  - JoAnn Stirling, FSEC
  - Jerry Ventre, FSEC
  - Karen Clifton, Dept. of Economic and Community Affairs, AL
  - Jenny Ahlen, Arkansas Energy Office, AR
  - Dennis Creech, Southface Energy Institute, GA
  - Adam West, Southface Energy Institute, GA
  - Kate Shanks, Dept. for Energy Devel. & Independence, KY
  - Luis Osorio, Energy Affairs Administration, PR
  - Bevan Smith, Virgin Islands Energy Office, VI
  - Chris Frederick, Virgin Islands Energy Office, VI
  - Maurice Muia, Virgin Islands Energy Office, VI
2. Introduction: D. Block began meeting by welcoming the partners to the first conference call of the new training network. The only missing partners were Terrence Spears, Mississippi Development Authority, MS and Ryan Gooch, Dept. of Economic and Community Development, T N. D. Block will contact these two individuals.
3. Contact information: The first items of business were to establish the primary contact name at each partner site and to establish a list of names for documents to be sent. The attached list (Attachment 1) gives the updated primary contact names.
4. Best communication procedure: Everyone on the call agreed that the conference call was the best manner of having these meetings. The concept of using a computer network was mentioned, but may not be needed since documents can be forwarded by email.
5. Project overview: D. Block gave a general overview of the program stating the primary objective is to conduct training programs to train faculty/instructors from each state or territory. Once those faculty/instructors are trained, then they will return to their local institution to perform training of entry level practitioners. The training will be done for two solar technologies – photovoltaics (PV) and solar water heating (SWH). A syllabus of each training programs was requested. These two syllabi are attached as Attachments 2 and 3. The syllabus request was for the possible use of partners when selecting train course individuals. For additional course information go to: [http://www.fsec.ucf.edu/en/education/cont\\_ed/pv/igcpvs/installers.php](http://www.fsec.ucf.edu/en/education/cont_ed/pv/igcpvs/installers.php) to view the PV course description and [http://www.fsec.ucf.edu/en/education/cont\\_ed/solar\\_thermal/systems/index.php](http://www.fsec.ucf.edu/en/education/cont_ed/solar_thermal/systems/index.php) to view the SWH course description.

6. Training concepts: The key point in the training concept discussion was that each energy office was given the authority and task of selecting the institutions and individuals to be trained. The following item gives information on the type of individual to be selected for training. For the individuals receiving training, the program will pay their travel expenses – airfare, hotel, daily food allowance and incidentals. For this travel, state of Florida regulations will have to be followed. The sheet describing the Florida travel regulations is attached as Attachment 4. The program will also pay the training course tuition cost which is \$1300/student for PV and \$750/student for SWH. The PV course is 4.5 days long and SWH course is 3 days. The program will not pay for the individual's time. During the first period of the project all training will be held at FSEC.

A request was made of possible times for the training. The following are possibilities:

PV course:

- 7-11 June
- 12-16 July
- 2-6 August
- 13-17 September
- 4-8 October
- 8-12 November
- 6-10 December

SWH course:

- 23-25 February
- 11-13 May
- 17-19 August

7. Selection of individuals to be trained: The key element in the training program is the selection of who will receive the training. As stated above, the energy office is tasked with making the decision on who is to receive the training. A list of 10 attributes for selection has been previously sent to everyone. During the discussion the following items were mentioned as the most critical:
  - 1) Location of instructors or individuals in areas of highest solar industry activity within the state or territory.
  - 2) Individuals which have background in electrical or electronics (for PV) and plumbing or HVAC (for SWH). Examples are faculty from construction technologies in vocational schools or community colleges.
  - 3) Location in which the local utility has a solar program.
  - 4) Institutions which desire to begin educational programs in PV or SWH.

D. Block noted during the phone conversation that the institutions which elect to offer these training programs can use the training as a money maker for the institution by charging individuals to take the courses.

8. Certification concepts: The question of certification was discussed. D. Block noted that to become a solar contractor, an individual must satisfy the construction industry licensing laws of the state, city, county or territory. (Licensing is a state or local requirement.) State licensing normally requires at least 4 years of practical on-the-job experience. He also mentioned that this training is not directed at licensing but will be directed at entry level practitioners. There is a national organization (NABCEP) that administers a PV Entry Level program which requires the passing of an examination. Organizations who want to register as Providers of the NABCEP PV Entry Level Exam must complete a NABCEP PV Entry Level Provider Application. See <http://www.nabcep.org/entry-level-certificate-program> for details. D. Block also mentioned that the institution that offers the training can be certified by an organization called ISPQ. See <http://www.irecusa.org/irec-programs/ispq-training-accreditation/> for details. The Florida Solar Energy Center is ISPQ certified.
9. Information needed:  
The following items were requested from each partner:
  - 1) Individual's name, institution and contact information for training in PV and SWH. There is no limit on names, but 1 to 3 was suggested as a start. This information is to be sent to D. Block in approximately one month.
  - 2) Training dates, if possible. Training dates may not be able to be established until the individuals are identified.
10. D. Block mentioned that DOE has published a map of training networks. To view a pdf of the Solar Instructor Training Network go to [http://www1.eere.energy.gov/solar/pdfs/regional\\_training\\_map.pdf](http://www1.eere.energy.gov/solar/pdfs/regional_training_map.pdf)
11. The meeting adjourned after about one hour in time.

Attachment 1

**Primary Contacts**

<b>State</b>	<b>Name</b>	<b>Email</b>	<b>Phone</b>
Florida Solar Energy Center	David Block John Harrison	<a href="mailto:block@fsec.ucf.edu">block@fsec.ucf.edu</a> <a href="mailto:Harrison@fsec.ucf.edu">Harrison@fsec.ucf.edu</a>	321-638-1001 321-638-1506
Alabama	Karen Clifton	<a href="mailto:karen.clifton@adeca.alabama.gov">karen.clifton@adeca.alabama.gov</a>	334-242-5321
Arkansas	Jenny Ahlen	<a href="mailto:jahlen@arkansasedc.com">jahlen@arkansasedc.com</a>	501-682-2460
Florida	Robert Vickers	<a href="mailto:Robert.vickers@eog.myflorida.com">Robert.vickers@eog.myflorida.com</a>	850-487-3800
Georgia	Dennis Creech Adam West	<a href="mailto:dcreech@southface.org">dcreech@southface.org</a> <a href="mailto:awest@southface.org">awest@southface.org</a>	404-604-3580 404-604-3643
Kentucky	Kate Shanks	<a href="mailto:kate.shanks@ky.gov">kate.shanks@ky.gov</a>	502-564-7192
Mississippi	Terrence Spears	<a href="mailto:tspears@mississippi.org">tspears@mississippi.org</a>	601-359-3449
Puerto Rico	Luis Osorio	<a href="mailto:losorio@aae.gobierno.pr">losorio@aae.gobierno.pr</a>	787-237-1905
Tennessee	Ryan Gooch	<a href="mailto:ryan.gooch@tn.gov">ryan.gooch@tn.gov</a>	615-741-2994
Virgin Islands	Bevan R. Smith, Jr. Chris Frederick Maurice Muia	<a href="mailto:bsmith@vienergy.org">bsmith@vienergy.org</a> <a href="mailto:cfrederick@vienergy.org">cfrederick@vienergy.org</a>	340-773-1082
Dept. of Energy	Yana Rasulova Mark Frickel	<a href="mailto:yana.raslova@go.doe.gov">yana.raslova@go.doe.gov</a> <a href="mailto:mark.frickel@ee.doe.gov">mark.frickel@ee.doe.gov</a>	303-275-4890 202-287-1804

## Attachment 2

### **FSEC PV Workshop (5-day) Syllabus**

Introduction and Overview

Conducting a site survey

Lab: Site Survey

Estimating the Energy Output

Selecting a System

The PV Array

Lab: I-V Curve Lab

PV System Mechanical Design

Lab: Safety and installation materials

Lab: Array/Mechanical Mounting

Wiring the Array

The Utility Interactive Inverter

Lab : Grid Connected Inverter Lab

Batteries and Charge Controller in PV Systems

Lab: Grid Connected Battery Inverter

PV Systems with Battery Back-Up

Lab: Battery Demonstration

Connecting to the Grid

Conducting an Acceptance Test

Grid Connected System Diagram\ Example

Q&A and Review

NABCEP Entry Level Exam

## Attachment 3

### **FSEC Solar Thermal Workshop (3-day) Syllabus**

Introduction

Thermal applications (residential & commercial)

Solar Basics/Site selection

System types

System components

System sizing/performance methods

Installation - Collector Mounting to Piping Arrays

Installation - Components Installation to Checkout

Certification

Structural installation requirements/Wind loading

Safety

4 Labs

Lab: Solar access assessment

Lab: Collector disassembly

Lab: Collector mounting and pipe flashing

Lab: Controllers/Sensors and Pumps

Pool Heating Systems

Commercial & Industrial Systems

Solar Contractor Licensing

## Attachment 4

### Florida Travel Regulations

Below is a brief explanation of the requirements for travel reimbursement according to the University of Central Florida and the state of Florida. I will take care of submitting all paperwork to the University.

Prior to travel:

- Completed W9 form. I will fax/email form to traveler.

You will be reimbursed for:

- Travel to airport (cost of taxi, shuttle, etc.) or If private vehicle is used: \$0.445 per mile. Tips for taxi will be reimbursed up to 15% of fare.
- Airfare, airline tickets must be economy or coach class.
- Meals, \$6 breakfast, \$11 lunch, and \$29 dinner.
- Hotel, accommodations for a single room.
- Rental car – I will reserve a rental car for you once you make your airline reservations.
- Incidentals: tolls, parking, gas, tips for bellman or skycap of \$1/bag up to five bags.

Original receipts are required for everything except meals. Meals will be reimbursed at specified amount except when provided by FSEC.

Once travel is completed and I receive all your receipts, I will prepare the paperwork and submit it to the University. It will take about 3 weeks for you to receive your reimbursement.