DOE/R4/10226--T1

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FINAL PERFORMANCE REPORT:

DOE/R4/10226--T1

DE84 000759

✓ Workshops & Incentive Loans Program for
Construction of Solar Greenhouses, Grain
Dryers, Window Boxes & Food Dryers

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The United Methodist Church
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DE-FG44-80R410226

WORKSHOPS & INCENTIVE LOANS PROGRAM FOR CONSTRUCTION OF SOLAR
GREENHOUSES, GRAIN DRYERS, HOT WATER HEATERS, COLLECTOR
PANELS AND FOOD DRYERS

BRIEF SUMMARY:

The strategy for involving area high school vocational agriculture students and older adults in pre-fabbing solar devices for construction workshops proved very productive. The project worked closely with community groups to pool resources along with those available from DOE to make solar "do-it-yourself" family oriented workshops available to the public. Families pre-registered and came to the Sand Mountain Electric Cooperative on a designated Saturday where pre-fabbed kits and high school students led them in building solar water heaters, collector panels and food dryers to take home for use.

Trained teams of solar greenhouse builders have joined with some 40-50 area families in constructing their attached greenhouses. A project employed field horticulturalist has assured help with greenhouse management and led monthly fellowship meetings. A fellowship of solar greenhouse owners has been organized and functions well for sharing ideas as well cooperative purchasing of supplies and the marketing of plants.

The incentive loans program has not only made greenhouses and solar water heaters available to families who could have not otherwise afforded them, but has generated over \$23,000. in labor for workers. Grants from the parish churches and from area Community Action Agencies have assured the participation of low income families. The project has tried to be as inclusive as possible from its beginning.

The loan fund has functioned very well with only one exception (one problem loan out of some 24 is not too bad!). It now has some \$11,000. in it.

The project has assisted families in constructing over 250 solar devices during the past three years and through church involvement has made over \$24,000. in grants to over 200 area families. Publicity and promotion has been good through the local media as well as community agency newsletters etc..

DE-FG44-80R410226

SOLAR LOAN FUND (DOE Contribution) \$4500.

The Upper Sand Mountain Parish Solar Loan Fund was established in June 1980 to provide low-interest incentive loans to area families desiring to construct their own solar devices. The only stipulations for the loans are allowance of reasonable public visitation and monitoring and employment of parish trained construction teams (youth and older adults) if labor is to be hired. The loan fund has received good response from local and church sources aside from DOE to bring its present total to over \$11,000.. The fund has made 24 loans with good repayment records.

The Upper Sand Mountain Parish Solar Loan Fund is a separate account No. 62-029339 in Rainsville Bank, Rainsville, Alabama 35986. The fund is a revolving fund allowing a three year repayment period for up to \$600. on a solar greenhouse at 5% interest. Loans are made up to one-half of the cost of a solar hot water heater or panel constructed in parish sponsored "do-it-yoyrself" workshops. These loans run up to \$150. for a one year period. If persons repay their greenhouse loans in full during the first year, no interest is charge..

The DOE funds were first loaned as follows:

11-1-80	Mr. Charles McGee, Rt. 1, Box 281	\$600.
	GREENHOUSE Mentone, Al. 35984	
11-5-80	Mr. Claud Callaham, P. O. Box 1,	\$600.
	GREENHOUSE Sylvania, Al. 35988	
12-8-80	Mr. Charles Greene, Rt 1, Box 124	\$600.
	GREENHOUSE Flat Rock, Al. 35966	
1-10-81	Mr. Phillip Mann, Rt. 1,	\$600.
	GREENHOUSE Langston, Al. 35755	

SOLAR LOANS Continued

3-10-81	Mr. Haskel Burton, Rt 2, Box 491,	\$800.
	GREENHOUSE Henagar, Al. 35978	
5-21-81	Mr. Eldon Boyd Rt 1, Box 130	\$600.
	GREENHOUSE Dutton, Al. 35744	
7-1 81	Mr. Ken Munn Rt 1, Box 255	\$600.
	GREENHOUSE Fyffe, Al. 35971	
7-15-81	Mr. C. E. Ashley 148 Lee Street	\$100.
	SOLAR HOT WATER HEATER Rainsville,	
	Al. 35986	

TOTAL LOANED (DOE) \$4500.

Loan application forms and agreements are attached with local news articles to help make the public aware of funds.

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THE UPPER SAND MOUNTAIN PARISH
The United Methodist Church
P. O. BOX 505,
RAINSVILLE, ALABAMA 35986
PHONE 638-2126

LOANS FOR CONSTRUCTING SOLAR PROJECTS

The Upper Sand Mountain Parish of The United Methodist Church, The Sand Mountain Electric Cooperative and The Dekalb County Energy Project are cooperatively involved to provide low interest loans in order to encourage and assist area people in the construction and utilization of solar projects (greenhouses, water heaters, panels, food dryers, window box collectors etc.).

From time to time the members of this project join with other community groups and agencies to provide construction "do-it-yourself" workshops for particular solar devices. The loan program is specifically designed to encourage and assist workshop participants in the purchase of materials. Loan information is available from either of the three participating groups above. Applications should be returned to: The Sand Mountain Electric Cooperative, P. O. Box 277, Rainsville, Alabama 35986. Loans are repayable to The Upper Sand Mountain Parish P. O. Box 505, Rainsville, Alabama 35986.

LOAN APPLICATION

DATE: _____ SOLAR DEVICE OR WORKSHOP: _____
(to which loan is applied) _____

NAME: _____ ADDRESS: _____

PHONE: _____

Directions to Home (Where solar device is to be located: _____)

Are you willing to have people come by to see and talk with you about your project? _____.

AMOUNT OF LOAN REQUEST: \$ _____. (Maximum allowable for this type project \$ _____.)

This loan is sought for _____ years at 5% interest. It is repayable to The Upper Sand Mountain Parish (address above).

OFFICE USE ONLY:

Date: _____ LOAN AMOUNT APPROVED \$ _____. (To be applied toward the above project only.)

Loan Officer: _____
Dorsey H. Walker, Director USMP

*newspaper
article removed*

THE
UPPER SAND MOUNTAIN
PARISH
SOLAR PROJECTS
LOAN FUND

Phone 628-2126

P. O. Box 505, Rainsville, Alabama 35986

The Upper Sand Mountain Parish of The United Methodist Church began a low interest loan fund in the summer of 1979 in order to assist area people in exploring and developing solar energy for home and farm use. Since the beginning of the Fund gifts have been received to assist its growth and service scope from the following sources:

The U. S. Department of Energy
The Nat'l Division, Board of Global Ministries of
The United Methodist Church
The Board of Discipleship of The United Meth. Church
The Dekalb County Energy Management Project

Loans are made at a 5% (five per cent) interest.

NAME _____ DATE: _____
ADDRESS _____ OF LOAN _____
PHONE: _____ AMOUNT
OF LOAN \$ _____
PROJECT TO BE COVERED BY LOAN: _____

All loan recipients agree to reasonable public visitation of their projects for the benefit of sharing ideas and information to foster development of solar projects elsewhere. Recipients further agree to participate in reasonable monitoring of solar projects (Such monitoring will be made in conjunction with The Upper Sand Mountain Parish Solar Greenhouse Project and will be at no expense to the owner.)

LOAN REPAYMENT SCHEDULE

FIRST LOAN PAYMENT DUE DATE _____ 19____
AMOUNT DUE \$ _____
(_____ dollars)
SECOND LOAN PAYMENT DUE DATE _____ 19____
AMOUNT DUE \$ _____
(_____ dollars)
THIRD LOAN PAYMENT DUE DATE _____ 19____
AMOUNT DUE \$ _____
(_____ dollars)

LOAN RECIPIENT (sign) _____ DATE _____
LOAN OFFICER (sign) _____

All payments should be made to: The Upper Sand Mountain Parish
Solar Projects Loan Fund, P. O. Box 505, Rainsville, Alabama
35986. Phone 638-2126.

SOLAR WINDOW BOX COLLECTOR WORKSHOPS

Working closely with two area high school vocational agriculture departments, 130 solar window box collector units were pre-cut. Several designs were tried with one pulling air behind the aluminum collector plate chosen. The Dekalb County Vocational School drafting students drew plans for distribution (all free regardless of price printed on them!). Plans attached.

The materials for solar window boxes cost \$5900. with some \$700. involved in incidental workshop expenses. Several youth are hired to conduct each workshop and meals are served. Sand Mountain Electric Cooperative provided the meal and Revere Copper and Brass donated the collector plate aluminum.

Some 30 vocational agriculture students built window box units as a part of their classroom experience. They were taken home for use or returned to the project to be given to low income families. Eight students were hired to serve as teachers, along with their teachers, for the February 21, 1981 workshop at the electric cooperative involving 60 families. Some 84 families sought to register with 24 turned away.

Later, during the March 9-14, 1981 "Energy Responsibility: Today and Tomorrow" workshop at Camp Sumatanga, Gallant, Alabama, 12-15 families constructed window box collectors for their use. Since that time several church and community groups around Alabama and Mississippi have been involved in day long workshops conducted by the project to built one or two window box units

SOLAR WINDOW BOX COLLECTOR WORKSHOP continued

for their area. Hopefully, these demonstration workshops are encouraging people in other communities to design workshops for their areas.

The general performance of the window box units have been amazing. Some of our older couples are thrilled to report monthly what's happening. On the average, warm air coming from the units on a good sunlit day is 35 degrees higher than that going in. We have had 125 degree air coming out during winter and up to 134 degrees air coming out in summer. For two years now, two units in the church study at Section United Methodist Church (approximately 12 ft. by 28 ft.) have provided nearly one-third of the heat required.

A food drying compartment was designed for employing the use of the window box collector during summer, but the design proved complicated to build. Thus, we dropped the idea in favor of a much simpler food dryer design with its own panel.

The solar window box collector unit will provide near one-third heat savings for a 150 square foot space during a good sunlit day. Brochures attached.

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Upper Sand Mountain Parish Solar Greenhouse Project

EUGENE RUSSELL of Upper Sand Mountain Parish Solar Greenhouse Project gives assistance to a participant in a project sponsored SOLAR WINDOW BOX COLLECTOR WORKSHOP. To date over 115 such collectors have been constructed by families in USMP sponsored workshops.

A MOTHER AND HER TWO CHILDREN build a Window Box Solar Collector for use in their home. Over 170 people have worked together to build units pre-cut by Section High School Vocational Agriculture Classes. Three area Ag Depts. have been trained to serve as workshop leaders.

THE BOB MATTHEWS greenhouse roof top SOLAR HOT WATER HEATER HAS PERFORMED WELL THIS WINTER to produce a 1642 kwh or \$82.10 saving for the family during the first quarter of 1981. Section, Alabama.

build a SOLAR WINDOW BOX COLLECTOR

Discover what solar energy can mean
for your winter heating cost.

(photo by Naomi Seymour - Daily Sentinel)

Area vocational agriculture students
have been involved in window box con-
struction and will be on hand to assist
with the workshop.

CONSTRUCTION WORKSHOP

Saturday, February 21, 1981

9:00 AM - 4:30 PM

Sand Mountain Electric Cooperative
Rainsville, Alabama 35986

\$1.95

HERE'S YOUR PLANS

Sand Mountain Electric Cooperative Manager,
Roscoe Young looks with Jerry Holcomb, Section
High School Vocational Agriculture Teacher and
Student, David Shavers at a recently constructed
Solar Window Box Collector. (Photo by Carey Baker,
Sand Mountain News)

**** *** SOLAR *** WINDOW BOX COLLECTOR **** ****

CAMP SUMATANGA SOLAR GREENHOUSE & WORKSHOP

The weeklong "Energy Responsibility: Today and Tomorrow" workshop held March 9-14, 1981 at Camp Sumatanga, Gallant, Alabama involved some 75-90 people in evening mini-seminars and day time construction projects. The primary solar construction project was the forty-seven foot solar greenhouse attached to the camp's primary building. The greenhouse contains a roof top solar hot water heating system with three tanks for a combined capacity of 156 gallons. The camp serves people from across the southeastern United States and beyond. The National Camp Leader's organization has chosen to hold its annual 1982 meeting at Camp Sumatanga and has invited the project to conduct construction workshops for solar devices.

The Sumatanga greenhouse cost near \$6000. in materials with most of the labor free. The Upper Sand Mountain Parish Solar Project provided some \$4700. in materials through the \$1800. provided by this grant and a \$1900. grant from the Board of Discipleship of The United Methodist Church. The Camp invested some \$1200-\$1500. in materials along with some employed specialized labor amounting to almost \$1200.. The greenhouse is attracting a lot of attention with an expected 15,000-20,000. visitors annually. It is a gorgeous blending of western cedar and insulated glass panels.

The greenhouse has performed well thus far. During the early part of January 1982 when outside temperature fell to a low of three degrees below zero, without supplemental heat the greenhouse maintained at low of 38 degrees. The

CAMP SUMATANGA SOLAR GREENHOUSE & WORKSHOP continued

solar water heating system is being monitored in comparison with an adjoining wing on the camp lodge. Data will not be available until later in the year of 1982.

Photos are attached.

You are
invited to
check out what
solar energy can mean
for your church and
home.

Non Profit
Organization
U.S. Postage
PAID
Rainsville, AL
35986
Permit No. 13

"Hands-on" Construction Workshops
Evening "Mini-Seminars"
March 9-14, 1981
Camp Sumatanga

Return Registration Today!

"Please Post & Share"

Left to right: Bill Dow, Dorsey Walker, Bert Goodwin, and Paul Konove.

CAMP SUMATANGA SOLAR GREENHOUSE Gallant, Alabama
Upper Sand Mountain Parish Solar Greenhouse Project

DE-FG44-80R410226
Grant supplement

SOLAR HOT WATER HEATER WORKSHOP

The Section High School Vocational Agriculture Department worked closely with our older workers to construct a model "bread box" type solar hot water heater. After perfecting the design, the agriculture department pre-cut 35 units and we set out workshop for May 16, 1981 at the Sand Mountain Electric Cooperative. While the Section High School students cut pieces, our older workers became teachers carrying a solar water heater kit to three other area vocational high school classes. Older workers helped each class complete a solar water heater unit for their teacher. The Sand Mountain Electric Cooperative provided materials for these under their education program.

Following the construction of "teacher" solar hot water heaters, the project hired eight of the best students from four schools to conduct the Saturday workshop at the electric cooperative. The local community action agency provided ten scholarship grants to allow low income families to participate. The workshop soon drew maximum registration and went even smoother than the window box collector workshop. We have found that interested students and agriculture teachers do a superb job prefabbing solar devices for workshops.

DOE grant supplement funding allowed us to make three partial grants to families for building solar hot water heaters who could not have built them otherwise and to pay agriculture students and the agriculture departments for their work in prefabbing the units.

Plans for the solar hot water heater were first drawn

SOLAR HOT WATER HEATER WORKSHOP continued

by the local Vocational School and later by John Walker. Over 1000 copies of the plan have been printed with over 600 distributed without cost to interested people.

The water heaters have performed well and are constructed to last. However, accurate data is not yet available in that units have only been in use for a short period of time. T.V.A. is presently monitoring 5-6 of our units. Later in 1982 we should have more accurate data. The water reaches 160 degrees in summer time and is frequently above 100 degrees on sunlit days.

Plans are attached.

build your own
SOLAR HOT WATER HEATER
and save

**CONSTRUCTION
WORKSHOP**

Saturday, May 16, 1981

9:00 AM - 4:30 PM

Sand Mountain Electric Cooperative

Rainsville, Alabama 35986

register today

A workshop of The Upper Sand Mountain Parish Solar Greenhouse Project

*newspaper
articles removed*

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THE UPPER SAND MOUNTAIN PARISH

of
The United Methodist Church
P.O. Box 505
Rainsville, AL 35986
Phone (205) 638-2126

(Plans drawn by John A. Walker)

SOLAR HOT WATER HEATER PLANS

SOLAR ENERGY	HOT WATER HEATER BASE	USMPOOI	2 OF 11
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SOLAR ENERGY	HOT WATER HEATER FRONT FRAME	USMPOOI	3 OF 11
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SOLAR ENERGY	HOT WATER HEATER BACK CORNER POST	USMPOOI	4 OF 11
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SOLAR ENERGY	BASE, FRONT FRAME & CORNER POST ASS'Y	USMPOOI	5 OF 11
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PARTS LIST

Pcs Per Unit	Size	Description of Parts	Design Part Number
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WESTERN CEDAR SIDING (4' X 9' Sheets): Reverse Board & Batting

(2)	18½"X 56" X 5/8"	DOOR FRONTS	(50)
(2)	30 "X 36" X 5/8"	CABINET ENDS	(17)
(1)	48"X 10" X 5/8"	FRONT	(20)
(1)	3½"X 10" X 5/8"	FRONT STRIP	(21)
(1)	36"X 48" X 5/8"	BACK	(18)
(1)	36" X 8½" X 5/8"	BACK STRIP	(19)

MASONITE SIDING (4' X 9' Sheets):

(1)	30"X 54" X 5/8"	BOTTOM	(6)
-----	-----------------	--------	------

THERMAX INSULATION BOARD: Foil Covering 3/4" Sheets (4' X 9')

(1)	50X 29" X 3/4"	BOTTOM (Inside)	(40)
(1)	51½X 27" X 3/4"	BACK (Inside)	(42)
(1)	50" X 7" X 3/4"	FRONT (45 deg. bevel)	(43)
(1)	49½" X 4"X 3/4"	TOP (45 deg. bevel)	(44)
(2)	29" X 27" X 3/4"	ENDS (Inside)	(41)
(2)	14-3/4" X 52" X 3/4"	DOOR INSULATION	(39)

STYOFAM INSULATION (Sheets) Either 3/4" or 1½" thickness

3/4 INCH THICKNESS WILL REQUIRE TWICE AS MANY PIECES AS WILL 1½ INCH.

THICKNESS BEING USED: _____ INCH.

(2)	42-3/4" X 28" X 3/4"	BACK	(23)
(2)	28" X 3-3/8" X 3/4"	BACK STRIP	(24)

SOLAR HOT WATER HEATER PAGE 2

Pcs per Unit	Size	Description of Part	Design Part Number
<u>STYOFAM INSULATION (Sheets)</u>			
(2)	1½" X 51-3/4" X 3/4"	FRONT STRIP	(25)
(2)	19½" X 27½" X 3/4"	ENDS	(22)
<u>DENNY BOARD (Sheets) Foil Covering ¼ inch</u>			
(2)	3" X 30" X ¼"	END COVER STRIPS	(37)
(1)	3" X 55-3/4" X ¼"	TOP EDGE COVER	(36)
(1)	4" X 55-3/4" X ¼"	BOTTOM EDGE COVER	(38)
<u>PINE 2X6</u>			
(2)	2" X 6" X 30"	BOTTOM END FRAME	(3)
(2)	2" X 6" X 51½"	FRONT & BACK BOTTOM FRAME	(1)
(1)	2" X 6" X 54½" (45 deg. bevel)	INSIDE TOP FRAME	(13)
<u>PINE 2X4</u>			
(6)	2" X 4" X 27"	BOTTOM SUPPORT FRAME	(2)
(1)	2" X 4" X 51½" (45 deg. bevel)	FRONT TOP FRAME	(7)
(2)	2" X 4" X 7" (45 deg. bevel)	FRONT CORNER POST	(8)
(2)	2" X 4" X 28"	BACK CORNER POST	(9)
<u>PINE 2X2</u>			
(2)	2" X 2" X 49-3/8 BLACK 45 deg.	TANK SUPPORTS	(45)
(2)	2" X 2" X 33½" (45 deg. bevels both ends)	END TOP RUNNERS	(14)
(2)	2" X 2" X 28"	BACK SIDE CORNER POST	(10)
(1)	2" X 2" X 28"	BACK SIDING JOINT POST	(12)
(1)	2" X ½" X 54½"	STRIP TO ATTACH TO (13)	(15)
<u>WESTERN CEDAR 2X4</u>			
(4)	2" X 4" X 12"	STAND LEGS	(51)
(2)	2" X 4" X 55½"	STAND SIDES	(53)
(2)	2" X 4" X 27"	STAND ENDS	(52)

SOLAR HOT WATER HEATER PAGE 3

Pcs Per Unit	Size	Description of Part	Design Part Number
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WESTERN CEDAR 2X6

(1)	2" X 6" X 57"	TOP	(16)
-----	---------------	-----	------

WESTERN CEDAR 3/4" (TRIM)

(1)	2" X 57-3/8" X 3/4"	DOOR LAP STRIP	(35)
(2)	2" X 18 1/2" X 3/4"	UPPER DOOR END TRIM	(32)
(4)	2" X 56" X 3/4"	HORIZONTAL DOOR FRAMING STRIPS	(49)
(4)	2" X 14-3/4" X 3/4"	VERTICAL DOOR FRAME STRIPS	(48)
(2)	2" X 18 1/2" X 3/4"	LOWER DOOR END TRIM	(31)
(2)	9 1/2" X 1 1/2" X 3/4"	FRONT CORNER SIDE TRIM STRIP	(29)
(2)	9 1/2" X 1 1/2" X 3/4" (45 deg. bevel)	FRONT CORNER FRONT TRIM STRIP	(30)
(4)	36" X 1 1/2" X 3/4"	BACK CORNER TRIM STRIPS	(28)

MISCELLANEOUS

(1)	52 gallon tanks		
(1)	9'X15"X3 1/2" (R 11) Fiberglass Insulation		(26)
(1)	3'X5'X.04 SunLite Prem. II Glazing		
(4)	5" strap hinges		(57)
(2)	tubes geo-cel silicone caulk		
(1)	5" handles (Door pull)		(54)
(2)	small "S" hooks		(34)
(1)	12 ft. piece of small chain		(47)
(8)	No. 10 "O" hooks with wood screw shank		(33)
(2)	90 degree 3/4" street "Ls"		
(2)	14" (3/4" galvanized pipe)		
(3)	3/4" galvanized plugs		
1/2 lb.	4 penny electroplated nails		(5)
1/2 lb.	8 penny coated nails		(4)
1/2 lb.	10 penny coated nails		(11)
1/2 lb.	10 penny electroplated nails		(27)
1/8 lb.	3/4 inch aluminum nails		(46)
24-No.	10 - 1 inch wood screws		(56)
4 -No.	10 - 3/4 inch wood screws		(55)
	1 pint flat black paint		
	1 - 8 oz. wood glue		

SOLAR FOOD DRYER WORKSHOP

First experimenting with dryer compartments to be attached to solar window box collectors, we soon decided the complications were not worth it. We could build one much easier with its own panel and with little added cost. Our older men worked with several designs and finally settled on the one that seemed to work best. The workshop was set for August 22, 1981 at the Sand Mountain Electric Cooperative. The Section High School agriculture students and our older adults pre-cut 28 units. The workshop was late into the season but quickly filled with a considerable waiting list. Participants were charged \$30. each with the materials and pre-cutting actually running near \$54. per unit. Our DOE grant money was used to provide for the pre-cutting and to make two grants to low income families.

As before we employed high school students to help conduct the workshop and found excellent response. We have worked closely with Section High School Home Economics Department in testing drying techniques. We are encouraging families to look at solar food drying as a very pleasing alternative in food preservation. We have provided workshop sessions to the public and interested groups on how to dry and use anything grown in the garden.

The solar food dryers are performing well with good solar radiation. Most foods will dry in a day with others taking up to two. The drying compartment is usually at 110 to 135 degrees for 6 to 7½ hours on most summer days. Food dried in a dark compartment, as provided by our model, retains better color. Plans are presently being drawn.

SAND MOUNTAIN ELECTRIC COOPERATIVE

RAINSVILLE, ALA. 35986, AREA CODE 205-632-2153

TELEPHONES

RAINSVILLE	632-2153	SECTION	222-6653
GERALDINE	657-2153	VALLEY HEAD	635-5750
HENAGAR	657-3253	FORT PAYNE	845-1511

SOLAR FOOD DRYER WORKSHOP

August 22, 1981

Friends,

Many of you have participated in solar window box collector and hotwater heater workshops at the Coop. We initially planned to have a workshop to allow persons building window box collectors to construct food dryers to connect to the window units. We have chosen otherwise. Therefore anyone may build a food dryer in that it has its own collector panel attached.

The Workshop will be limited to 25 families and will cost \$30. each toward the cost of materials. The workshop is supported by grants from The Department of Energy and The Dekalb County Energy Management Project. It is sponsored by The Sand Mountain Electric Cooperative and The Upper Sand Mountain Parish Solar Greenhouse Project.

REGISTRATIONS (with fee) must be into, The Sand Mountain Electric Cooperative, Rainsville, Alabama 35986 no later than August 15, 1981. Limited to 25 families. Register today.

Hollis Bolton
Sand Mountain Electric Coop

Dorsey Walker
Upper Sand Mountain
Parish Solar
Greenhouse Project

MODEL ON DISPLAY
at the SMEC

Outside air enters this chimney dryer at the bottom, is heated as it moves up the chute, then rises over the food and dries it.

WORKSHOP: AUGUST 22, 1981

9:00-11:30

Sand Mountain Electric
Coop

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CONSULTANT PERFORMANCE

The blending together of resources and personalities have been a real strength in the Upper Sand Mountain Parish Solar Projects from the beginning. The good support provided through Department of Energy Grants has allowed consultants to be available at the times most needful for the development and continued growth of the project.

Mr. Jerry Holcomb, Section High School Vocational Agriculture Teacher has given time, as have all staff and consultants, far and beyond what they have been compensated for. The high level of expertise and the ability of consultants to relate well to area residents has lent much to the success we have achieved. Mr. Holcomb works in a very easy and comfortable way with students allowing them to learn by doing.

Mr. Paul Konode of the Solar Greenhouse Employment Project has been "on-site" when we needed him, spending several weeks in the area and making special trips at his project's expense to see things through. Our gratitude is far stretched to Paul and his partner, Dr. Bill Dow.

Miss Lee Ann Perme, and now, Mrs. Charles Greene are giving freely to assist people in learning to manage greenhouses with special time for low income families who need encouragement and unique resources. Relationships have grown in a splendid way between our greenhouse owners and the horticulturalist.

The salaries, travel and incidental expenses incurred by the project have been a vital part of its success. Thanks to all.

CONCLUSIONS & RECOMMENDATIONS:

- (1) Encourage local community initiatives in the development of family oriented "do-it-yourself" solar construction workshops.
- (2) Provide incentives to encourage local vocational high school departments to become involved in promoting, prefabbing and conducting solar construction workshops. (Keep young people "out front" in publicity etc..)
- (3) Combine the resources of older adults with the training opportunities for youth. These two age groups work marvelously well together.
- (4) Help communities to develop low interest incentive loan programs to enable families to benefit from solar and to build in employment opportunities if possible.
- (5) Promote solar as healthy, earth respecting, economical alternatives. Assist developing models on community buildings (greenhouses on vocational agriculture buildings etc.). This opens new areas for students interested in horticulture as well as provides a solar learning experience.