SOLAR ENERGY INDUSTRY REPORT

CONTRACTORS SOLAR LICENSE TO BE PRIORITY ISSUE WITH CAL SEIA

After receiving our last newsletter, many members (as well as non-members) of CAL SEIA wrote and called with their comments and concerns regarding the SC-44 supplemental solar license. CAL SEIA has asked for a meeting with the Contractors State Licensing Board to discuss our plans for a primary Solar Contractors License. Members will be kept informed of our progress and will be notified of any meetings regarding same.

Paul Bevens, CAL SEIA President, recently sent a letter to all members of the Association in which he explained the issue. The following is the text of that letter.

The Contractors License Board has recently enacted a resolution to establish a supplemental Solar Classification - SC-44. The SC-44 Solar License can only be issued as a supplemental to one of the following primary classifications: A, B, C-4, C-10, C-20, C-36, C-53, C-61 (pool maintenance). And, NO TEST IS REQUIRED. Applicants must only fill out a form and pay a fee of $30.00. Additionally, there is a semi-annual reporting procedure which requires that a registrant provide CSLB with a list of completed solar jobs (names, addresses and day-time phone number).

The Contractors License Board has ruled that a Supplemental SC-44 Solar Class is limited to the scope of the primary class with respect to solar installations. This means that if you are licensed as a C-36 Plumbing Contractor you can only install Domestic Hot Water Systems. You are not qualified to install Pool Systems under the current rules. Conversely, C-53, C-61 Contractors are limited to pools only and cannot legally install "DHW" systems. Space heating systems can only be installed by a C-20 Heating and Air Conditioning Contractor, etc.

YOUR SOLAR ACTIVITIES ARE COMPLETELY LIMITED BY THE SCOPE OF YOUR PRIMARY LICENSE CLASSIFICATION.

SEIA has recently released the details of its program for the rating, labeling & certification of solar collectors. This comprehensive program involves various licensing fees by the manufacturer in addition to a royalty of $0.015 per square foot of rated collector produced and shipped (based on gross collector area). Additional details on this program may be obtained from the SEIA offices in Washington, D.C.

UNDERWRITERS LABORATORIES, INC.
SOLAR EQUIPMENT LISTING ACTIVITIES

There has been some confusion regarding UL's requirement for sensor wiring used with pool controllers. The Santa Clara branch has indicated that Class 1 wiring would be required for swimming pool sensors while the UL Chicago branch has indicated that Class 2 wiring is acceptable. In addition, the City of Los Angeles is only requiring Class 2 wiring. This discrepancy in required wiring has caused great confusion and certainly forces a greater penalty on controllers manufactured under the Santa Clara UL office purview. CAL SEIA's Standards, Certifications & Testing Committee is actively working to resolve this issue. Another concern is that of triac failure in solid state controllers. UL is apparently developing a test procedure to match up controllers with specific pumps and test the combination under a half cycle failure mode of the triac for a specific period of time. The concern is that if the triac fails in a half cycle mode, will the pump act in such a way as to cause a safety hazard; for example, burn up or melt.

SOLAR HEAT EXCHANGER REQUIREMENTS FOR L.A. CITY AND COUNTY.

CAL SEIA's Committee on Standards, Certification & Testing reports that they have been working on the issue of requirements of solar heat exchangers in L.A. County and L.A. City. A draft standard on solar heat exchangers by the Solar Heating & Cooling Subcommittee of ASME was received early in January. The draft standard will eventually be adopted by ASME as a national code. In essence, the new
standard will allow both single and double wall heat exchangers for solar system heat exchangers. The heat exchangers may or may not require protection for leakage detection, depending on the toxicity levels of the heat transfer fluids.

Mayor Bradley's Solar City Committee met on January 19, 1979 to discuss development of the new guidelines for solar heat exchangers which will meet the requirements of L.A. City and L.A. County. The city and county engineers and health department officials, as well as members of the solar industry, were present at that meeting. Three sub-committees were formed to derive the criteria which will be presented to the city and county officials for their review. We hope that this particular issue will be resolved at the earliest possible date.

HUD and other state and federal agencies indicate that they all support the newly drafted standards by ASME Subcommittee on Solar Heat Exchangers.

SUN DAY, MAY 3rd

Plans are firming up for the celebration of SUN DAY May 3rd.

Solar Action Network reports that they are firming up speakers and solar equipment dealers to be present at the State Capitol in Sacramento and other metropolitan areas in the State in an effort to give solar yet another plug.

Paul Bevens, President of CAL SEIA, has announced that regional meetings of the Association will take place each month on the last Thursday of the month through calendar year 1979.

These meetings have proved very beneficial and are open to all solar business people whether or not a member of CAL SEIA.

For further information on these meetings, please contact Mr. Bevens at Familian Pipe & Supply, 7651 Woodman Avenue, Van Nuys, CA 91402 or call CAL SEIA Sacramento office.

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Applications for CAL SEAL registration have been coming into the CAL SEIA office at the approximate rate of one per day since the program opened it's Installer's Registration February 7th.

Upon receipt of each application, the form is checked for completeness and a registration number is assigned. The installer is then notified of his/her acceptance into the program.

The CAL SEAL Installation Form and Packet is now in the final stage of approval. Installation materials will be mailed to CAL SEAL registrants as soon as possible: about two weeks. Along with the installation materials will be a letter of invitation to submit a "candidate" installation to receive CAL SEAL #1.

If you have not received a registration packet, please contact CAL SEIA at 926 Jay Street, Suite 820, Sacramento, CA 95814. Attn: Ms. Carol Smith, CAL SEAL. (Membership in CAL SEIA is not required to participate in this program).

Prison solar program needs instructor to teach installation & solar to prisoners - start $1,400/month. Contact Len Greenstone, 6029 Venice Blvd., Los Angeles, CA 90034

The Public Relations Committee of CAL SEIA reports that they have been interviewing Public Relations agencies in California in an effort to secure the service of an organization to do a statewide campaign for the Solar Industry.

At the Board of Directors meeting on March 5th, the Board voted to have the Public Relations Committee develop various programs with Hoefer-Amidei, Public Relations in San Francisco, while at the same time work to develop seed money for same. The CAL SEIA Executive Committee will negotiate any contracts with the firm limited to funds collected.

The Committee feels that a statewide campaign for the solar industry is imperative - that consumers need to know about the tax credit and about the industry.

The program will also benefit individual members of the Association through publicity, pamphlets, brochures and media contact with consumers.

SOLAR ENERGY FOR AGRICULTURE

For what agricultural applications can solar energy be used? Is there a market for solar energy products in agriculture? What can be done to increase agriculture's use of solar?

(cont'd on page 5)
5. Agriculture - Solar (Cont'd)

These were some of the questions asked at a meeting of agricultural and solar industry representatives on February 22, sponsored by the SolarCal Office and the Department of Food and Agriculture. The purpose of the meeting was to foster communication among the solar industry, state government, and potential users of solar energy in a variety of agricultural businesses including canning, dairying, cattle raising, farming, the USDA, and others. California's potential users of solar energy include dairies, crop drying, greenhouses, food processing, space conditioning and irrigation while wind energy can be used for water pumping and electricity production. Also available to agriculture is a broad range of conservation measures, such as waste heat recovery for dairies, many of which could precede a solar purchase due to their very attractive paybacks.

The agricultural representatives were both interested in solar energy and skeptical of its current cost-effectiveness. They are concerned about the future cost and supply of conventional energy, and expressed a strong interest in obtaining more information about potential solar applications.

The meeting resulted in recommendations that the State seek funds to demonstrate use of a mobile solar unit for crop drying (after the short drying season, it could be moved to other uses), that the State and CAL SEIA explore the most promising solar uses in greater depth, and that information be provided to the agricultural associations on these solar uses. The groups represented should also seek to influence the nature of federally-funded solar demonstration projects to see that they truly reflect sensible approaches to solar energy for agriculture.

Please send information on new agricultural solar uses to CAL SEIA or the SolarCal Office at 921 10th Street, 1st Floor, Sacramento, CA 95814 - Attn: Wayne Parker. We will be working together to supply articles on solar use to various agricultural trade journals and other publications.

SOLAR SUPPLEMENTAL LICENSE SC-44

The Contractors' State License Board, at its public meeting January 26, 1979, announced that beginning JULY 1, 1979, the supplemental solar classification SC-44 will be issued to interested applicants. Any contractor licensed in one or more of the following classifications: A, B, C-4, C-20, C-36, C-53 or C-61 (Swimming Pool Maintenance), and who is installing solar energy systems, shall be required to obtain a supplemental solar license.

All contractors in these classifications will be considered qualified to apply for the new solar supplemental license by
making an application, as long as disciplinary actions or suspension actions have not been taken against the license. Application for SC-44 will be made on the standard Contractors' Board supplemental form 13-A-2. Certifications of experience are not necessary and there will be no exam at this time.

Supplemental license application forms may be obtained at any District Office or Branch Office of the Contractors' State License Board. Submitting the supplemental application and $30 fee may be done prior to July 1, but you will not be notified of application completion until after July 1. Please send the supplemental application in a separate envelope from any other licensing applications or information requests.

It is a misdemeanor for any person to act in the capacity of a contractor within California without valid license for any work over $200. If you wish to install solar energy systems you must work for someone who holds one or more of the seven classifications above or you must apply for a license yourself. There is a time delay in processing applications, therefore, do not wait until July to apply for one of these primary licenses. The supplemental license is an additional requirement after July 1, 1979.

In establishing which license categories qualify to install solar energy systems, the Contractors' Board reviews the net result for the solar energy installation. A solar system designed to accomplish space heating would be performed by a C-20 license holder (Warm-Air Heating, Ventilating, and Air Conditioning Contractor). A system for the accomplishment of domestic water heating is performed by a C-36 Plumbing Contractor, and so forth. A "B" license is the proper classification for solar projects that involve two unrelated trades.

Issuance of the SC-44 does not mean that contractors may do all solar installations, but are restricted to solar installations in accordance with their primary classification.

For further information contact DCA, Solar/Insulation Unit 1020 N Street, Sacto, CA 95814.

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Many calls have been received by CAL SEIA headquarters regarding the upcoming SEIA Conference to be held in Anaheim May 11-15.

All CAL SEIA members will be receiving information from SEIA in Washington within the next few weeks. However, listed below are the registration fees for those who are interested in advance registration:

Full registration:
- Members: $175
- Non-members: $225

Installers Course Only:
- Members: $225
- Non-members: $330

Daily Registration:
- Members: $75
- Non-members: $110

Member means - Member of the National SEIA.

The above prices include such lunches and buffets which might be held in conjunction with the day's activities.

Advance registration is recommended. The Installers Course, which is a 2 1/2 day program, is filling rapidly.

For further information, contact Barbara Lewis, SEIA, Suite 800, 1001 Connecticut Ave., N.W., Washington, DC 20036 or call (202) 293-2981.

SOLAR SEMINARS HUGE SUCCESS!

The CAL SEIA/Energy Commission seminars for the new solar business person held in the latter part of February in San Francisco, Sacramento, Los Angeles and San Diego were sell-outs.

We would like to apologize for those of you we had to turn away. It was our feeling that if we could keep the classroom size small the registrants would have more of an opportunity to ask questions and participate on a more personal level.

CAL SEIA and the Energy Commission will be holding these seminars again in either July
or August. If you are interested in being put on a mailing list to receive advance notification, please write to CAL SEIA, 926 Jay Street, #820, Sacramento, CA 95814.

CAL SEIA COMMITTEES

CAL SEIA has a lot of committees which are working on various projects for CAL SEIA and for the industry. Members are encouraged to become active on one or more of these committees and help your association do more to help you.

The committees are:

- Ethics Committee
- Governmental Affairs Committee
- Industry Statistics & Data Committee
- Industry/Utility Committee
- Installers Committee
- Membership Committee
- Other Alternative Energy Systems Committee
- Public Relations Committee
- Shows & Exhibits Committee
- Standards, Certifications & Testing Committee
- Warranties, Service Agreements & Insurance Committee

If you are interested in one or more of these committees, please let staff in Sacramento know. They will notify the committee chairman for you.

TAX CREDIT STATISTICS

The first tabulation of solar credits taken on 1977 income year returns have come in. The following table shows the number of solar credits taken on bank, and corporation tax returns during 1978. Some of these credits are for the prior 10 percent credit. In addition, about 5 percent of the total corporation tax returns filed during 1978 are still being processed so there may be a few more credits than are indicated on this table.

(See Table on Page 9)
**Income Tax Statistics**

**Solar Energy Tax Credits**

1977 Income Year (Tax Returns Filed in 1978)

<table>
<thead>
<tr>
<th>Adjusted Gross Income Class</th>
<th>Nontaxable Rtns</th>
<th>Taxable Rtns</th>
<th>All Rtns</th>
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<tr>
<td></td>
<td>No.</td>
<td>Amt of Credit</td>
<td>No.</td>
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<tr>
<td>Under 15K</td>
<td>400</td>
<td>228</td>
<td>604</td>
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<tr>
<td>15K - 20K</td>
<td>925</td>
<td>1,040</td>
<td>1,254</td>
</tr>
<tr>
<td>20K - 25K</td>
<td>900</td>
<td>774</td>
<td>1,475</td>
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<td>25K - 30K</td>
<td>851</td>
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<tr>
<td>35K - 40K</td>
<td>150</td>
<td>110</td>
<td>930</td>
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<tr>
<td>40K - 50K</td>
<td>250</td>
<td>648</td>
<td>1,290</td>
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<tr>
<td>50K &amp; Over</td>
<td>90</td>
<td>196</td>
<td>2,737</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>4,641</td>
<td><strong>$6,124</strong></td>
<td><strong>11,193</strong></td>
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Bank and Corporation Solar Credits (Preliminary)

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<tr>
<th>Industry</th>
<th>Number</th>
<th>Amount of Credit</th>
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<tbody>
<tr>
<td>Construction</td>
<td>8</td>
<td>$38,372</td>
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<tr>
<td>Real Estate</td>
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<td>28,548</td>
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<tr>
<td>Recreation</td>
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<td>2,238</td>
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<tr>
<td>Sales</td>
<td>6</td>
<td>4,916</td>
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<tr>
<td>Other*</td>
<td>6</td>
<td>11,408</td>
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<tr>
<td><strong>TOTALS</strong></td>
<td>37</td>
<td><strong>$85,482</strong></td>
</tr>
</tbody>
</table>

*Manufacturing, agriculture and television.

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**SOLAR APPLICATIONS SEMINAR FOR ARCHITECTS**

Pacific Sun of Menlo Park is hosting a Solar Applications Seminar for Architects on Thursday, March 29, 1979 at the Hyatt Union Square in San Francisco. The program covers active and passive design, solar hardware and solar economics. This is an intensive technical program for architects and contractors - not an over-view. The fee is $125, which includes the text Other Homes and Garbage, the Solar Applications Notebook, and a complimentary hot lunch. The speakers are Gilbert Masters, PhD, Professor at Stanford University and Harry Whitehouse, PhD, P.E., author, Professor at Stanford University. Contact: Pacific Sun - (415) 328-4588.
CAL SEAL PROGRAM

Over 32 Contractors have registered in the last month for the CAL SEAL Program, which means that at least one registration form per day is coming through the office.

The CAL SEALS have just arrived and will begin to be distributed when the installation forms (being sent out within the week) are completed.

We urge all solar contractors to become involved in this program. If you have any questions regarding CAL SEAL, contact John Holland, Program Director, or Carol Smith, Asst. Director at our Sacramento office.

SOLAR UPRISING '79

Don't forget the big Solar Uprising taking place May 11-15 in Anaheim.

JoAnne Bard of the National SEIA informs us that space has almost been sold out and that registrations are coming in daily.

WHO SHOULD ATTEND?

* BUILDERS & DEVELOPERS
* HOME IMPROVEMENT CONTRACTORS
* PLUMBING & HEATING CONTRACTORS
* ARCHITECTS
* ENGINEERS
* UTILITY REPRESENTATIVES
* LENDERS & INVESTORS
* STATE AND LOCAL OFFICIALS
* SWIMMING POOL CONTRACTORS
* MANUFACTURERS
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DATES TO REMEMBER

Apr 21 - CAL SEIA GOVERNMENTAL AFFAIRS COMMITTEE, 926 Jay Street, Suite 820, Sacramento - at 10:00 a.m.
Apr 21 - Wind Energy - History, present status & future needs: 166 Barrows Hall, UC Berkeley Campus
Apr 24 - CAL SEIA INDUSTRY/UTILITY COMMITTEE, Holiday Inn, Long Beach - 10:00 a.m.
Apr 25 - CAL SEIA REGIONAL MEETING, Bonanza Steakhouse, 8105 Clairmont Mesa Blvd., San Diego, CA - no-host luncheon at 12:00 - Contact Brian Langston (714) 292-5185
May 11-15 - SEIA National Solar Heating & Cooling Workshops & Product Exhibit: Convention Center, Anaheim
Jun 11 - CAL SEIA BOARD OF DIRECTORS MEETING - REGISTRY HOTEL AT ORANGE COUNTY AIRPORT 9:00 a.m.

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CONTACT: Ms. Aggie James, Executive Vice-President
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