SEIA SHC Alliance Conference Call – Minutes from December 8, 2014

Attending – 23 participants:

<table>
<thead>
<tr>
<th>Name</th>
<th>Company</th>
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<tr>
<td>Chip Bircher</td>
<td>SEIA</td>
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<tr>
<td>Les Nelson</td>
<td>IAPMO R&amp;T</td>
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<tr>
<td>Dan Gretsch</td>
<td>SOLARHOT</td>
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<td>Adam Chrisman</td>
<td>SunEarth</td>
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<td>Alonzo Morlesan</td>
<td>SRCC</td>
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<td>Bob Danielson</td>
<td>SunEarth</td>
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<td>Bryan Elwell</td>
<td>UMA Solar</td>
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<td>Dale Drury</td>
<td>Grundfos Pumps</td>
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<td>Darrell Blakeway</td>
<td>Perennial Energy</td>
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<td>Ed Murray</td>
<td>Aztec Solar</td>
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<td>Eileen Prado</td>
<td>Solar Rating</td>
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<td>Emory Houlton</td>
<td>Amatis Controls</td>
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<td>Hannah Qu</td>
<td>PiEP Solar</td>
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<td>Henry Vandermark</td>
<td>Solar Wave Energy</td>
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<td>James Wilson</td>
<td>Financial Risk</td>
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<td>Jim Huggins</td>
<td>Solar Rating</td>
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<td>John Antoneoli</td>
<td>UMA Solar</td>
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<td>John Dunlop</td>
<td>Renewable Energy</td>
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<td>Katherine Stainken</td>
<td>SEIA</td>
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<td>Mark Thornbloom</td>
<td>Solar Rating</td>
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<td>Michael Intrieri</td>
<td>SunDrum</td>
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<td>Piper Foster</td>
<td>Amatis Controls</td>
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<td>Victoria Hollick</td>
<td>Conserval Sys, Inc.</td>
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Action Items:

- Replay of Dec. 8 phone call available: Click here to download the audio .mp3 file

Minutes:

1) SEIA antitrust was read.

2) New Participants

- The company ATAS International, Inc. recently joined the SHC Alliance. The company manufactures metal roofing, metal wall and metal ceiling panels. Martin Misenheimer, the company’s sustainable building products manager, could not join the December call but will be on a future call.

Les Nelson, IAPMO, updated the group on the SHC industry’s response to DOE’s request for information on solar water heaters that were submitted on November 20. Thanks to everyone who worked on the document. Higher efficiency standards for U.S.-manufactured water heaters were published in the Federal Register 75 FR 20112 on April 16, 2010 and will go into effect on April 16, 2015. The new standard for electric storage water heaters over 55 gallons requires an energy factor of approximately 2.0, only attainable by heat pump water heaters as well as higher standards for gas water heaters. The standard would thus eliminate large electric tanks used in many solar water heating systems that have only one heating element at the top. These tanks are used commonly in several U.S. locations that are strong SHC markets. In September, a SEIA SHC delegation met with DOE to discuss this and several related issues, and DOE issued the RFI shortly thereafter. The submitted comments address DOE’s specific questions and recommends amending the standard to accommodate solar tanks. In addition, a copy of SEIA’s roadmap “Solar Heating and Cooling: Energy for a Secure Future” was appended and is now published in the Federal Register. Les estimated that DOE might respond by the end of January.

Additional material available here:
- SEIA, IAPMO, SRCC Response to DOE Water Heater RFI nov 2014
- Federal Register, Vol. 29, No. 203, Tuesday, Oct. 21, 2014
- Test Procedures and Energy Conservation Standards for Residential Water Heaters
- Docket Number EERE-2014-BT-STD-0045

4) Case Study: SOLARHOT, Duffield, VA Regional Jail

Dan Gretsch, SOLARHOT, described a recent solar water heating installation at a regional jail in Duffield, VA with 800-900 inmates. SOLARHOT provided design assistance for the project, and it was installed by Segura Solar in Virginia. The system consists of 72 4 x 10 collectors plumbed in series-parallel. A major goal of this project was to reduce overall costs to make the bid competitive. One example was specifying an atmospheric tank, which cost the contractor substantially less than the typical pressurized tank. The taller tank also allowed for stratification within the tank and provided head to keep the pumps wet. Also, some components, (such as the drain/test port/thermal well/vent/pressure relief valve and isolation valve) were pre-assembled off-site to reduce the more expensive on-site, prevailing wage labor. The commercial pump station for the project includes dual heat exchangers and the associated pumps and integrated controls. The system is also monitored. On the roof, the installers worked closely with the roofing subcontractor to quickly and inexpensively install the mounting system. It included hiring a roofer who was bonded with the original roof manufacturer. That individual penetrated the rubber membrane, and the solar company followed immediately behind to set galvanized steel posts in the existing concrete roof deck and anchor them. The roofer in turn came behind them to flash and re-seal the membrane. This work was completed in two days, again reducing the project costs. Last, less expensive groove-lock steel piping was used instead of copper. The solar contractor was able to install the piping on their own, saving more money. NOTE: This project is among those described in SEIA’s recent report Saving Money and Energy: Solar Heating & Cooling Is Paying Big Dividends for U.S. Businesses, available on SEIA’s website.

5) SHC Alliance Update

Katherine Stainken, SEIA SHC Alliance updated the group on the Alliance’s recent activities.
- Katherine S. and others finalized SEIA Comments, submitted to EPA on Dec. 1 regarding EPA’s proposed Clean Power Plan. SEIA’s comments addressed all solar technologies, including solar heating and cooling, and call attention to SHC’s ability to impact supply-side sources that are covered by the plan. SEIA will now begin analyzing which states should be targeted for further action to encourage adoption of solar technologies in their compliance plans. SEIA has a working group for the EPA rules; contact Katherine S. if you’re interested in joining.

- John Dunlop is a renewable energy consultant in Minnesota. John worked at AWEA for many years, and also previously headed the renewable energy programs in Minnesota.
● In Congress, definition of renewable energy in federal purchase requirement, new attempt: DOD was supportive, but no energy provisions were included. Small energy bill from Senate Energy Committee may be coming next year.

● In New York, SEIA has had ongoing discussions with NYSERDA about making the incentive program fuel neutral and to increase the incentive caps. A stakeholder meeting was held on **Friday, Nov. 21**, and local contractors raised some questions that NYSERDA wants to address. The target date for making the changes is still the end of 2014. This program change, based on the additional RGGI funds, will be in effect for about a year until the new Clean Energy Fund program begins in 2016. The new plan proposal has already been released, and comments have been received. The next version will be released in February and additional comments will be submitted in March.

● In Massachusetts, **SB 2214**, which adds solar and other thermal technologies to the state’s AEPS, was passed by the legislature last summer. Meetings are ongoing, with the next one scheduled for Dec. 16. David O’Connor has been hired as the lobbyist to make sure SHC is included and that AECs are allocated properly. David is working on a metering guidance document, and Katherine will circulate it for comments. The draft rules will be coming out in December or January. Since the rules may not be issued until later in the year, SEIA is also hoping to insert a clause that will allow the incentives to be retroactive to January 1, 2015.

● Meetings have been held in Minnesota and Colorado, and SEIA will be looking to work with stakeholders in both states to move forward legislation related to SHC.

● Planning for Solar Power International 2015 is underway. The deadline for the general call for proposals is December 9. A planning session specifically for SHC sessions will be held during the week of Dec. 15, and it’s likely there will be a separate SHC call for proposals in January.

● The SHC Council and Katherine S. are formulating the Alliance’s 2015 strategic plan and objectives. Look for a calendar early next year.

● SHC Council elections are scheduled for February, though that may be delayed by a few months.

6) Articles and Publications

1) **Solar Uniquely Positioned to Help States Meet New Regulations**, Dec. 3, Rhone Resch, SEIA

2) **SEIA Comments, submitted to EPA**, Dec. 1, Rhone Resch, SEIA

3) **Earthjustice Releases Interactive U.S. Map Showing State Cleantech Status And EPA Targets**, Nov. 13, SolarIndustryMagazine

4) **How One State Sparked a Solar Boom**, Nov. 18, Pew Charitable Trusts

5) **Webinar: Clean Energy Policy: The Impact of Expiring Tax Credits**, Nov. 20, Pew Charitable Trusts


7) **CaliforniaFIRST Offers New Rates And Terms For PACE Financing**, Dec. 4, Solar Industry Magazine


9) **Florida’s Public Service Commission Guts Energy Efficiency Opportunities for Customers**, Nov. 25, Southern Alliance for Clean Energy

10) **Solar Energy and Architecture: Collection of Case Studies**, various dates, IEA Solar Heating & Cooling Program Task 41


12) **Seven Common Sales And Marketing Mistakes That Keep Solar Customers Away**, Dec. 4, James Tong and Benjamin Sigrin

7a) Solar Heating & Cooling Program Update from FL

● See link above for information on SHC program changes.
Ed Murray and Les Nelson mentioned that the proposed change for the incentives in the CSI-Thermal as still awaiting final approval. All stakeholders agree that the changes should be made, but working this item into the CPUC’s agenda schedule is challenging.

7b) Worldwide database for solar process heating being developed

Wolfgang Glatzl from the AEE - Institut für Nachhaltige Technologien Euro in Austria contacted the SHC Alliance. They are developing a database of solar process heating installations, and additional case studies are requested. See the database at http://ship-plants.info/projects/175. Contact Mr. Glatzl for more information.

8) Upcoming Conferences & Webinars (updated for December 2014)

1) SEIA Webinars:
   - Optimizing your Customer Acquisition Efforts: Lessons from Research and Practice, Nov. 20, Free for SEIA members; $79 for non-members

2) Solar Canada 2014, Dec. 8-9, Toronto; See agenda and Register online

3) U.S. Solar Market Insight Conference, Dec. 8-10, San Diego, See agenda and Register online

4) Renewable Energy World Conference & Expo: Power Generation Week, Dec. 9-11, Orlando, See agenda and Register online

5) ACEEE Hot Water Forum, Feb. 22-24, 2015, Nashville, See agenda and Register online


8) Intersolar North America 2015, Jul. 14-16, 2015, San Francisco; Preliminary inquiry

9) Solar Power International 2015, Sept. 14-17, Anaheim; Call for Education Presentations due Dec. 3

9) Other Program/Industry Updates

- None

10) Date for Next SEIA SHC Alliance Meeting

- Monday, January 12, 3 p.m. Eastern

Chip Bircher

SEIA SHC Alliance
SHCAlliance@seia.org