MINUTES
ASHRAE TRAINING AND EDUCATION COMMITTEE
January 30, 2022
Las Vegas

Members Present
Keith Reihl, TEC Chair
Jim Vallort, TEC VC Planning
Jesse Fisher, TEC VC Operations
Jason Alfonso
David Meredith
Tahir Raza
Terry Schroeder
Andrew Sneed
Ashley Weekly

Guests
John Nix

Staff Present
Tim Kline
Karen Murray, TEC Staff Liaison
Eunice Njeru
David Soltis

ACTION ITEMS

<table>
<thead>
<tr>
<th>No.</th>
<th>Page</th>
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<th>Action</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>Staff Liaison</td>
<td>Determine what’s needed to upgrade the current SDL system.</td>
</tr>
<tr>
<td>2</td>
<td>4</td>
<td>Staff Liaison</td>
<td>Relay proposal forms to the TAC</td>
</tr>
</tbody>
</table>
1. **Call to Order**
   Mr. Reihl called the meeting to order at 1:09pm.

2. **ASHRAE Code of Ethics Commitment**
   Mr. Reihl advised everyone present that the meeting would be held in compliance with the ASHRAE Code of Ethics and Core Values.

3. **Introduction of Members and Visitors**
   Committee members and guests introduced themselves.

4. **Review Agenda**
   No changes.

5. **Approve Minutes of the January 12, 2022 Meeting**
   Ms. Schroeder moved and Mr. Vallort seconded approval of Minutes from the January 12, 2022 committee meeting. Motion passed unanimously (CNV). Minutes posted on PDC page, ASHRAE Website.

6. **Financial Report**
   Ms. Murray referenced the report from the January 12 meeting, noting an increase in instructor-led online and eLearning courses and a decrease in face-to-face course offerings.

7. **Staff Report**
   7.1 **eLearning**
   Ms. Njeru reported current eLearning enrollments, revenue trends, course updates and newly released courses. She reported above budget sales over the past year. Report included as Appendix A.

   7.2 **ALI Instructor-led**
   Ms. Murray shared a summary of instructor-led course registrations. She reported a hold on in-person training and steady virtual course registration numbers throughout the calendar year. This conference is the first opportunity for in-person courses. The schedule includes 12 in-person and 5 virtual courses. Attendance to date in good. In-person HVAC training is expected to begin again in March 2022. Registration summary included as Appendix B.

8. **Guest Presentation**
   n/a

9. **Chair’s Report**
   Mr. Reihl emphasized that TEC members are SMEs responsible to monitor courses and suggest new topical ideas.

10. **2021-22 MBO Update**
    Updates included in Appendix C.

11. **Open Action Items**
    Updates are included in Appendix D.
12. **Subcommittee Reports**
11.1 Planning Subcommittee
   11.1.1 Reference Manual
   The Reference Manual is under review and expected to be complete before the annual meeting.

11.2 Operations Subcommittee
   Mr. Fisher discussed current Operations Subcommittee priorities including:
   The development of key words, and the SDL course reviews which are in progress with Mr. Meredith and Ms. Pierson.

13. **Old Business**
12.1 Learning Pathway Updates
   Suggested updates included:
   - Discussion of need, terminology.
   - Training levels added? Years of experience?
   - Career pathways.
   - Synergize courses with conference courses
   - Sub-divisions
   - Definition of learning pathways
   - Clarify and evolve the pathways to be more useable

14. **New Business**
14.1 SDL Product Discussion
   The committee discussed optimizing the SDL learning, making the content available in an electronic format to replace the manual textbook learning. Converting the Skill Developing question and answers in an online format will be the most time consuming. However, input from the committee members may speed up the process. It was also discussed that eLearning may be a good home for the SDLs. The eLearning system could potentially handle individual and group SDL purchases as well as provide the testing and results required for a certificate of completion. Ms. Murray agreed to explore what’s needed to upgrade the SDL program and if/how it could be moved from the bookstore to the eLearning platform.

**ACTION 1:** Ms. Murray will determine what’s necessary to upgrade the current SDL system.

14.2 Current Course Proposals
   Ms. Murray summarized the proposals in-hand for vote or discussion.
   14.2.1 Task Force Building Decarbonization (TFBD)
   The TFBD intends to develop three 3-hour ALI courses to be presented at the annual meeting in Toronto. The Fundamentals of Building Decarbonization is the first proposal complete.

   Multi-day course with several developers and intended presenters.

   14.2.3 Technical Activities Committee
TAC requested PDHs for the TEC Leadership Development Program. Ms. Murray presented the request to the committee, and it was agreed that a proposal would be required for each course section or module planned for PDHs.

**ACTION 2:** Ms. Murray will relay the information to the TAC and provide the necessary proposal forms.

14.3 Upcoming Course Proposals
- 14.3.1 Task Force Building Decarbonization – Introductory Course
- 14.3.2 Task Force Building Decarbonization – Applications
- 14.3.3 2022 Spring Online Courses

15. **Brainstorm**
Discussed the latest industry/potential course topics, some previously discussed at the Planning Subcommittee meeting. Topics included:
- New challenges
- Strategies
- Electric vehicles – electrification – battery fire, protected parking, manufacturing
- Fire & Life Safety
- Building integration with other industry
- Building design constraints
- Energy codes

16. **Next Meeting**
Next committee meeting will be online.

17. **Adjourn**
Meeting adjourned at 5:12pm.
eLearning Staff Report

Total Current Enrollments by Month

[Bar chart showing enrollment trends from January 2021 to December 2021]

ASHRAE AND UNEP enrollees from all sources with a current 12-months subscription
Cumulative 12-Month Enrollment by Source

12-Month Revenue Trend
eLearning Member Benefit

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Launch</td>
<td>May 2021</td>
</tr>
<tr>
<td>Coupons issued so far</td>
<td>2,000</td>
</tr>
<tr>
<td>Total actual value</td>
<td>$84,000</td>
</tr>
</tbody>
</table>

Course Updates Project

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully Updated</td>
<td>8</td>
</tr>
<tr>
<td>Awaiting Development</td>
<td>5</td>
</tr>
<tr>
<td>Under Development</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>
## New Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Status</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essentials of DOAS</td>
<td>Complete</td>
<td>July 2021</td>
</tr>
<tr>
<td>Solar Decathlon Building Science Education Training</td>
<td>Complete</td>
<td>January 2022</td>
</tr>
<tr>
<td>Designing Toward Net-Zero Energy Commercial Buildings</td>
<td>Content Dev.</td>
<td>TBD</td>
</tr>
</tbody>
</table>

## ESCO-ASHRAE Partnership

- eLearning has partnered with ESCO Group (https://www.escogroup.org/)

- Partnership will expand ASHRAE’s training market to higher education

- Expected launch date – March 1
Thank you
**APPENDIX B – INSTRUCTOR-LED COURSE REGISTRATIONS**

**SUMMARY OF ALL COURSE REGISTRANTS**  
(To date - January 24, 2022)

<table>
<thead>
<tr>
<th>Year</th>
<th>Conference/Location</th>
<th>Winter</th>
<th>Annual</th>
<th>Online</th>
<th>In-Company</th>
<th>Chapter</th>
<th>Industry</th>
<th>HVAC I</th>
<th>HVAC II</th>
<th>GTC</th>
<th>TOTAL*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021-2022</td>
<td>(Las Vegas/Virtual)</td>
<td>361</td>
<td>Virtual</td>
<td>580</td>
<td>367</td>
<td>344</td>
<td>0</td>
<td>269</td>
<td>181</td>
<td>125</td>
<td>2,227</td>
</tr>
<tr>
<td>2020-2021</td>
<td>(Virtual/Virtual)</td>
<td>Virtual</td>
<td>Virtual</td>
<td>886**</td>
<td>1,022</td>
<td>400</td>
<td>1,008</td>
<td>345</td>
<td>82</td>
<td>1,656</td>
<td>5,399</td>
</tr>
<tr>
<td>2019-20</td>
<td>(Orlando/Virtual)</td>
<td>1,138</td>
<td>Virtual</td>
<td>752***</td>
<td>665</td>
<td>200</td>
<td>42</td>
<td>312</td>
<td>250</td>
<td>339</td>
<td>3,698</td>
</tr>
<tr>
<td>2018-19</td>
<td>(Atlanta/Kansas City)</td>
<td>746</td>
<td>212</td>
<td>260</td>
<td>735</td>
<td>600</td>
<td>453</td>
<td>548</td>
<td>331</td>
<td>730</td>
<td>4,615</td>
</tr>
<tr>
<td>2017-18</td>
<td>(Chicago/Houston)</td>
<td>838</td>
<td>173</td>
<td>417</td>
<td>1,813</td>
<td>400</td>
<td>124</td>
<td>565</td>
<td>441</td>
<td>153</td>
<td>4,924</td>
</tr>
<tr>
<td>2016-17</td>
<td>(Vegas/Long Beach)</td>
<td>1,161</td>
<td>231</td>
<td>449</td>
<td>882</td>
<td>405</td>
<td>51</td>
<td>680</td>
<td>383</td>
<td></td>
<td>4,242</td>
</tr>
</tbody>
</table>

*Total does not include eLearning or SDL registrants.
**An additional 2,584 individuals registered for free online webinars.
***An additional 6,909 individuals registered for free online webinars.
### Training & Education Committee

MBOs for Society Year 2021-22  
Chair: Keith Reihl Date: July 16, 2021  
Planning Subcommittee Chair Jim Vallort  
Operations Subcommittee Chair Jesse Fisher

#### Objective  
<table>
<thead>
<tr>
<th><strong>Objective</strong></th>
<th><strong>SP</strong></th>
<th><strong>Complete by</strong></th>
<th><strong>Fiscal Impact</strong></th>
<th><strong>Responsible Party</strong></th>
<th><strong>Comment/Status</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Review new strategic plan for items that apply to TEC and develop a plan to implement 2 ideas from the review. Implement 1 idea in the fall and 1 in the spring.</td>
<td>None</td>
<td></td>
<td>Planning Subcmte</td>
<td>List 2 ideas and implement timeline</td>
<td></td>
</tr>
<tr>
<td>2. Develop Dashboard for QUICK LOOK analytics for TEC</td>
<td>1-1-22</td>
<td>None</td>
<td>Reihl/Staff</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Develop/Modify HVAC 101 courses to prepare for CHD exam. Look at BCxP, BEMP, BEAP.</td>
<td>TBD</td>
<td></td>
<td>Planning Subcommittee</td>
<td>Back to instructors. What topics does your course cover?</td>
<td></td>
</tr>
<tr>
<td>4. Develop Financial Model for course evaluation</td>
<td></td>
<td></td>
<td>Operations Subcommittee</td>
<td>Draft expected data needs. Per course needs</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Recommendations for Strategic Planning:** Not currently.
# Training & Education Committee

## Subcommittee MBOs for Society Year 2021-22

**Chair:** Keith Reihl  
**Date:** July 16, 2021  
**Planning Subcommittee Chair:** Jim Vallort  
**Operations Subcommittee Chair:** Jesse Fisher

<table>
<thead>
<tr>
<th>Objective</th>
<th>SP</th>
<th>Complete by</th>
<th>Fiscal Impact</th>
<th>Responsible Party</th>
<th>Comment/Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Develop topics and RFPs for an additional (3) practical applications course</td>
<td></td>
<td>None</td>
<td></td>
<td>Planning Subcommittee</td>
<td>Complete with decarbonizations courses in the works.</td>
</tr>
<tr>
<td>2. Review SDLs and issue RFPs for the ones that need updating on prescribed schedule</td>
<td></td>
<td>None</td>
<td></td>
<td>Operations Subcommittee</td>
<td>In progress.</td>
</tr>
<tr>
<td>3. Review existing courses and sunset those that have not been used in 5 years or recommend updates</td>
<td></td>
<td>None</td>
<td></td>
<td>Operations Subcommittee</td>
<td>Continuous.</td>
</tr>
<tr>
<td>4. Every course reviewed by TEC Liaison prior to presentation – Quality check</td>
<td></td>
<td>None</td>
<td></td>
<td>Planning Subcommittee</td>
<td>Continuous.</td>
</tr>
<tr>
<td>5. Develop marketing plan for TEC courses/branding. Work with ASHRAE marketing to understand and improve</td>
<td></td>
<td>TBD</td>
<td></td>
<td>Operations Subcommittee</td>
<td>Continuous – 1 conf. call early fall and 1 conf. call early spring</td>
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**APPENDIX D – OPEN ACTION ITEMS**

**TEC Meeting October 20, 2021 (Virtual)**

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<tbody>
<tr>
<td>2</td>
<td></td>
<td>Mr. Reihl</td>
<td>Meet with Ms. Njeru to discuss how the eLearning courses are currently bundled. Complete.</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>TEC members</td>
<td>Share what you’d like to see in the committee dashboard. Complete. Financials, revenue, per course attendance and revenue.</td>
</tr>
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**PDC Meeting June 11, 2020 (Virtual)**

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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>Staff Liaison</td>
<td>Follow-up &amp; determine need and resources for complete SDL updates. Action delayed 2020-21 due to financial constraints. In progress again with new budget. Will discuss at annual meeting.</td>
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**PDC Meeting February 2020 Orlando**

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