



MINUTES
EXECUTIVE COMMITTEE MEETING

Friday, October 20, 2023

Approved by the Executive Committee on December 21, 2023.

TABLE OF CONTENTS
 Executive Committee Meeting
 Friday, October 20, 2023

CALL TO ORDER	2
CODE OF ETHICS	2
ROLL CALL/INTRODUCTIONS	2
REVIEW OF MEETING AGENDA	2
APPROVAL OF MINUTES	2
REVIEW OF ACTION ITEMS	2
TECHNOLOGY COUNCIL REPORT	2
AHR MEXICO TECHNICAL CONFERENCE LONGTERM PLANNING	3
CARBON OFFSETS FOR OFFICER TRAVEL (JULY – SEPTEMBER 2023)	3-4
SIGNIFICANT OTHER TRAVEL REIMBURSEMENT AND TAX IMPLICATIONS	4
SRC REQUESTED FEEDBACK	4-5
REQUEST FOR LIAISON TO NEMI	5-6
NEW MOU – U3ARC (UNION OF ASSOCIATIONS OF AFRICAN ACTORS IN REFRIGERATION AND AIR CONDITIONING)	6
SOCIETY INTERNATIONAL BANK ACCOUNT	7
ASHRAE UNEP COMMITMENTS	7-8
DISCUSSION ON REHVA INVOLVEMENT WITH DECARB CONFERENCE	8-9
SALES OF STANDARDS/MEMBER BENEFITS MOVING FORWARD	9-10
NEW BUSINESS	10-11
EMPOWER RESEARCH PROPOSAL	10-11
UPCOMING MEETINGS	11
EXECUTIVE SESSION	11
ADJOURNMENT	12

PRINCIPAL APPROVED MOTIONS

Executive Committee Meeting

Friday, October 20, 2023

No. - Pg.	Motion
1 – 2	The minutes from the June 24 and 28, 2023, June 29, 2023, and August 22, 2023 ExCom open session meetings be approved.
2 – 2	Tech Council recommend that BOD ExCom initiate a revision to the <i>Indoor Carbon Dioxide</i> Position Document (PD).

ACTION ITEMS

Executive Committee Meeting

Friday, October 20, 2023

No. - Pg.	Responsibility	Summary of Action	Status	Goal Date
1 - 2	Reiniche	Explore options for working with ICC to adopt ASHRAE Standard 169, <i>Climatic Data for Building Design Standards</i> . (Assigned Fall 2021 Leadership Meeting)	Ongoing	
2 - 2	Austin and Sekhar	Work with the Education Committee to develop a plan to update the Design Fundamentals course. (Assigned March 2023)		
3 - 2	Conlan and Staff	Publicize the opportunity for the local generation of content among Chapters and TCs once the training materials are complete. Craft a policy for connecting Chapters and Regions with the technical side of Society and set up the processes which will facilitate the development of content by Chapters and Regions. (Assigned February 4 and 8, 2023)	Ongoing	June 2023
4 - 2	Littleton	Coordinate a meeting of the Global Training Center Oversight Committee and share the report with the Chair of Pub and Ed Council and ExCom. Provide recommendations to ExCom regarding additional resources needed. (Assigned February 4 and 8, 2023)	Ongoing	
5 - 2	Constantinide and Staff	Work on proposed MOU and Work Plan with CONFEA. Provide details on financial benefits to Society. (Assigned February 4 and 8, 2023)	Ongoing	
6 - 2	Austin	Work with ACEC/CAMEE to develop an MOU and work plan.		
7 - 2	DEI Subcommittee	Work to develop an MOU with multiple organizations that work with and advocate for minority groups.		
8 - 2	Littleton	Organize a meeting to develop a strategy for the April Presidential visit to China.		
9 - 2	Yates	Investigate how to address Society's interactions with government agencies from a comprehensive standpoint.		
10 - 2	Littleton	Hand off the exploration of a new MOU with AIHA to Mr. McQuade.		
11 - 2	Littleton	Request answers to Region XIV CRC motions related to GDPR from Society's legal counsel and forward those responses to Region XIV DRC, Mahroo Eftekhari.		
12 - 2	Littleton	Determine who on staff will review items from the CRC roundtables and provide ExCom with an executive summary at the October ExCom meeting.		November 2023
13 - 2	Littleton	Assist with making membership recommendations and creating the job description for the Strategic Advisory Panel.		

14 – 3	Littleton	Develop an interaction plan for the Mexico City Chapter and IEC, with the goal of addressing the AHR Mexico Expo in the future.		
15 – 4	DeVaughn	Confirm if there is an impact to the ROB regarding the procedural accounting change for paying and calculating the tax impact of significant other travel reimbursement.		
16 – 5	Jolly	Forward SRC's interpretation to the chair and ExO of EHC so they are aware that they are cleared to make a motion to resolve the Avery Petition.		
17 – 6	Rakheja	Work on developing a work plan with U3ARC and provide updates to ExCom by the Chicago meeting.		January 2024
18 – 7	McQuade	Ask the Finance Committee to discuss banking issues involving regions outside of North America and provide recommendations to resolve these issues.		
19 – 10	Scoggins and Staff	Set up the new Membership Model and Benefits Presidential Ad Hoc, creating a charge and requesting members to participate. The goal is to have the group ready to meet for the first time in Chicago.		January 2024
20 – 11	Littleton and Reiniche	Respond to Empower with the cost involved to investigate a research project as well as the development of a standard. Work to flush out what Empower would like to have signed in Chicago.		



MINUTES
EXECUTIVE COMMITTEE MEETING

Friday, October 20, 2023

MEMBERS PRESENT:

Ginger Scoggins, President
Dennis Knight, President-Elect
Bill McQuade, Treasurer
Billy Austin, Vice President
Wade Conlan, Vice President
Ashish Rakheja, Vice President
Chandra Sekhar, Vice President
Jeff Littleton, Secretary

GUESTS PRESENT:

Art Giesler
Bryan Holcomb
Buzz Wright
Corey Metzger
Heather Schopplein
Jonathan Smith
Kishor Khankari
Ron Gagnon
Scott Peach
Steve Sill
Doug Cochrane

STAFF PRESENT:

Candace DeVaughn, Sr. Manager - Board Services
Chandrias Jolly, Manager - Board Services
Lizzy Seymour – Director – Member Services
Mark Owen, Director - Publications & Education
Kirstin Pilot, Director - Development
Stephanie Reiniche, Director - Technology
Alice Yates, Director - Government Affairs
Craig Wright, Director of Finance
Tony Giometti, Group Manager - Conferences

CALL TO ORDER

The meeting was called to order at 9:00 a.m.

CODE OF ETHICS

Ms. Scoggins read the code of ethics commitment and advised that the full code of ethics statements and core values were available online.

ROLL CALL/INTRODUCTIONS

Roll call was conducted; members, guests, and staff were in attendance as noted above.

REVIEW OF MEETING AGENDA

Ms. Scoggins reviewed the meeting agenda. 'Empower Research Proposal' and 'Madrid Decarbonization Conference and REHVA' were added to *New Business*.

APPROVAL OF MINUTES

It was moved and seconded that

1. The minutes from the June 24 and 28, 2023, June 29, 2023, and August 22, 2023 ExCom open session meetings be approved.

MOTION 1 PASSED (Unanimous Voice Vote, CNV).

REVIEW OF ACTION ITEMS

Action items 1 through 4, 7, 10 through 13, 21, 24 and 25 were reported as ongoing. All other action items were reported as complete.

AI 1-12

Mr. Littleton will assist with making membership recommendations and creating the job description for the Strategic Advisory Panel.

AI - 13

TECHNOLOGY COUNCIL REPORT

Mr. Rakheja moved and Mr. Conlan seconded that

2. Tech Council recommend that BOD ExCom initiate a revision to the *Indoor Carbon Dioxide* Position Document (PD).

Mr. Rakheja provided background on the motion and it was shown on screen. He reported that there is confusion about what CO2 exposure means in terms of IAQ, about health and productivity effects of CO2, and about benefits of CO2 control technologies. People are misapplying ASHRAE technology/information to produce systems and situations that do not provide what they claim. This poor understanding can lead to energy waste and/or poor IAQ. ASHRAE needs to clarify its position on these issues.

EHC and DRSC votes were unanimous.

MOTION 2 PASSED (Unanimous Voice Vote, CNV).

Mr. Littleton advised that the final PD, once ready, will go before the BOD for review and approval.

AHR MEXICO TECHNICAL CONFERENCE LONGTERM PLANNING

Mr. Littleton reported that it was discussed in the past that IEC, in connection with AHR Mexico, continues to be upset with the Mexico City Chapter. Have indicated that they are not willing to work with the Mexico City Chapter for the next expo in 2027. They have, however, enjoyed working with the Monterrey Chapter.

Mr. Littleton reported that he spent a lot of time visiting with the Mexico City Chapter last month, making introductions and working to mend fences. The chapter ended up having about 800 people register and participate in the Mexico City conference. These results do not compare well to the Monterrey Chapter conference, which had 1,500 registrants. Mexico City is a much larger market so that conference is expected to be much larger.

Additionally, he reported that he has gotten the impression that running the technical conferences, alongside AHR Mexico, has grown to the point where more staff support is needed as opposed to relying entirely on chapter volunteers. The chapters like coordinating the technical conferences because they make a lot of money.

Mr. Littleton will develop an interaction plan for the Mexico City Chapter and IEC, with the goal of addressing the AHR Mexico Expo in the future.

AI - 14

Ms. Scoggins stated that it seems to be too much for a chapter to do on their own, but the chapters don't seem to want to give it up.

Mr. Littleton stated that there are things that can be done to better connect the dots between the Mexico City Chapter and IEC. Plan to relentlessly pursue those communications and preparations.

CARBON OFFSETS FOR OFFICER TRAVEL (JULY – SEPTEMBER 2023)

Ms. Scoggins reported that the document attached to the agenda is provided as an information item for the group.

Mr. Littleton reported that Society is working with a service that helps define what the carbon impact is of miles traveled. The service has a calculator that Society is using to determine the carbon impact.

Mr. McQuade reported that there are two efforts related to the current Society theme – calculating scope 3 emissions and coming up with a plan to reduce those emissions. Part of those efforts would be to purchase offsets. A separate item that the group is working on is to determine which offsets to purchase.

He reported that the groups, chaired by Ms. Yates, will meet next week to ensure there are no duplicated efforts. Hope to have a motion coming out of that meeting with a recommendation for all of Society. It is important that the regions are consistent.

Mr. Wright reported that Region X has committed to offsetting all travel for this Society Year.

Mr. Littleton reported that Society committed to purchasing carbon offsets for senior officers. There is not an expectation for Society VPs to purchase carbon offsets. The goal of the initiative was to learn something and align with the Society theme.

Mr. McQuade reported that staff seems to be able to do this pretty efficiently and there may be an opportunity to expand the work that is currently being done.

Ms. Scoggins expressed appreciation for the work of Region X.

SIGNIFICANT OTHER TRAVEL REIMBURSEMENT AND TAX IMPLICATIONS

Mr. Littleton reported that when ASHRAE reimburses ExCom members for spousal travel, ExCom members in the US are taxed on that reimbursement as income and they are, subsequently, issued a 1099. Society currently has a process to try to make the ExCom member whole on the cost of those taxes. Society ends up in a daisy chain situation where taxes are paid on the amount that was paid to make the member whole from the year before.

He reported that Mr. Wright had a recommendation to eliminate the daisy chain.

Mr. Wright reported that significant other travel reimbursements are a taxable expense because the significant other is not doing work on behalf of the Society. He provided an example, that was shown on screen, of how the tax impact is calculated for significant other reimbursed travel. He reported that Society issues 1099s until the amount is below \$600.

He reported that the plan is to gross the reimbursed travel expenses to account for the taxes that would incur the following year, for the previous year's reimbursed amount. This plan would cover all of the tax impact. Then, the following year, the process would start back over. Essentially, the recommendation is to pay for all taxes in advance.

Ms. Scoggins stated that the recommendation is to pre-pay the tax burden for the following two years.

Mr. McQuade stated that this is a pretty standard practice for bonuses.

Mr. Rakheja suggested that this information be added to the ExCom training so incoming members can plan properly.

Ms. DeVaughn will confirm if there is an impact to the ROB regarding the procedural accounting change for paying and calculating the tax impact of significant other travel reimbursement.

AI - 15

There was consensus from ExCom that the presented recommendation was a good path forward and should be implemented.

SRC REQUESTED FEEDBACK

Mr. Rakheja reported that an email was sent to members of SRC regarding member petitioned ROB changes. SRC leadership provided their opinions and Mr. Gagnon was asked to attend this meeting to provide the requested feedback.

Mr. Gagnon reported that he and Mr. Philips reviewed the request. He reported that they were able to review the request without knowing which motion it would apply to. He reported that the conclusion was that the rules were very clear that it is the BOD's purview to change, amend, edit, remove, or add rules, per ROB 1.100.002.3.

Ms. Scoggins thanked Mr. Gagnon for the update and stated that their feedback clears the way for EHC to submit a motion to the BOD to modify the member petition.

Ms. Jolly will forward SRC's interpretation to the chair and ExO of EHC so they are aware that they are cleared to make a motion to resolve the Avery Petition.

Mr. Littleton expressed agreement with SRC's opinion. He offered the caveat that in a future circumstance if a member petition came forward to ask the Society to do something, the BOD could not come back a week or so later and contradict what the member petition requested. In other words, a member petition outweighs a BOD decision.

Mr. Knight expressed his opinion that the Avery Petition was an odd petition and referendum. He expressed his opinion that a member petition to change the ROB is unusual. He suggested that Society leadership look at how those types of petitions come forward in the future.

Mr. Littleton stated that his recollection was that this was not a petition to change the ROB.

Ms. Jolly reported that when SRC initially reviewed this item, they determined that, no matter the origin, the BOD owns the ROB. Their feedback was based on this premise.

Ms. Scoggins added that to take that logic one step further, even if there is a petition to change the ROB, the BOD does not have to abide by that petition, as the BOD owns the ROB.

Mr. Littleton expressed that he was not sure if that interpretation was correct.

Mr. McQuade expressed agreement with Ms. Scoggins. He stated that the BOD represents the members and is elected by the membership.

Mr. Littleton yielded to the wisdom of the collective.

There was no further discussion.

REQUEST FOR LIAISON TO NEMI

Mr. Littleton reported that NEMI is requesting an MOU with Society as well as a liaison.

Ms. Yates reported that NEMI reached out to her regarding an MOU and liaison. She advised NEMI that the BOD was not looking to enter into new MOUs and encouraged them to look for opportunities to partner with Society.

She reported that NEMI does a lot of workforce related activities. She suggested that a relationship with NEMI may be something that Mr. Knight would want to explore as part of next year's Society theme.

She reported that NEMI presents an opportunity to explore and work with a group that has a different audience. They do want to enter into an MOU, but they are currently just asking for a first step to collaborate with Society more. NEMI has expressed an interest in working more with government outreach and GAC has been working with them on these opportunities.

Ms. Scoggins stated that she is hesitant to assign the President-Elect as a liaison.

Mr. McQuade stated that the work of NEMI will relate to future Society themes as well. He stated that he would be happy to reach out to them initially.

Mr. Knight suggested that other members of the ETF could be good liaisons as well.

Ms. Scoggins advised that Mr. McQuade will reach out to NEMI initially and additional steps will be discussed and taken at a later date.

NEW MOU – U3ARC (UNION OF ASSOCIATIONS OF AFRICAN ACTORS IN REFRIGERATION AND AIR CONDITIONING)

Mr. Littleton reported that U3ARC is a federation of 40 national associations (similar to REHVA) in Africa. Society is working hard to expand in Africa and partnering with this organization may be a good opportunity to expand some connections in an area where Society is weak.

Ms. Scoggins expressed agreement that Africa is the future. She asked how and when an MOU would be signed.

Mr. Littleton advised that if Society were to move forward with an MOU, a representative from U3ARC would come to the 2024 Winter Conference in Chicago where an initial signing could take place. To enter into an MOU, there would have to be a recommendation from ExCom to the BOD.

Mr. McQuade moved and Mr. Knight seconded that

3. ExCom recommends to the BOD that Society enter into an MOU with U3ARC.

The floor was opened for discussion. A summary of that discussion is below:

What is the financial impact? Want to make sure we have all of the information we are supposed to have.

Without a work plan MOUs do not commit Society to spending money.

Should invite U3ARC to be a part of AASA.

Suggest that next steps should be a work plan.

This motion could be postponed until the Chicago meeting. Could engage U3ARC on a work plan and update staff impact and motion background.

Would need to make assignments for a member to coordinate with U3ARC on the work plan.

Suggest Ade Awujoola.

Hesitant to give responsibility of leading this initiative to someone not on ExCom. Other members can certainly be involved, but not lead. Suggest Mr. Rakheja.

Mr. Rakheja expressed that he would be willing to take the lead.

Mr. Rakheja will work on developing a work plan with U3ARC and provide updates to ExCom by the Chicago meeting.

AI - 17

There was agreement from Mr. McQuade and Mr. Knight to **POSTPONE MOTION 3** until the first ExCom meeting of the 2024 Winter Conference in Chicago.

SOCIETY INTERNATIONAL BANK ACCOUNT

Mr. Rakheja reported that discussions of Society opening an international bank account has been discussed at several CRCs. He reported that regions are facing banking challenges including conversion rates and restrictions on moving funds.

He reported that Region XIV suggested that some funds could be kept in global banks.

He stated that the intention of a global or international bank account would be to empower the local treasurer.

A request has been sent to the Finance Committee that this topic be discussed by that body as well.

Ms. Scoggins suggested that the Finance Committee be asked to consider this item and provide a recommendation. She stated that a full understanding of losses that occur in transactions and what options (other than PayPal) are available to the regions was needed.

Mr. McQuade suggested that specifics and available options would vary. He confirmed that the topic would be added to an upcoming Finance Committee agenda.

Mr. Littleton stated that the issue of Society becoming involved in global banks was complicated. In many countries, ASHRAE would need to establish a legal entity in order to open a bank account. He expressed that he understood the regions' concerns.

Mr. Wright stated that international banking is not as easy as many people think. He reported that Society does handle regional banking for RAL and did so in the past for Region XIV. The current finance team does not have the expertise or bandwidth for Society to serve a more treasury type of function for the regions.

Ms. Scoggins expressed her opinion that if Society wants to truly be global, then it needs to be global. If Society needs to create other entities to resolve this issue, then that should be done.

She reported that the Finance Committee will be allowed to consider this item and provide ExCom with a recommendation.

Mr. McQuade will ask the Finance Committee to discuss banking issues involving regions outside of North America and provide recommendations to resolve these issues.

AI - 18**ASHRAE UNEP COMMITMENTS**

Mr. McQuade reported that Mr. Wentz provided an update regarding Society's interactions with UNEP. It was reported that the draft MOU with UNEP has been sent to them for approval.

A work plan has also been developed and is currently being reviewed by Jim Curlin at UNEP. He will be providing comments back soon.

UNEP has Technical Option Committees (TOCs) whose role is to provide analysis and information to the delegates of the Montreal Protocol so they can make informed decisions related to the treaty. TOCs are populated by representatives approved by their respective countries; typically, people with technical expertise and quite a few ASHRAE Members.

As part of the UNEP Work Plan, it has been requested that ASHRAE be designated in such a way that Society can recommend people to participate in TOCs. Up until this point, members on the TOCs have largely come from European countries. There are several TOCs related to equipment and energy efficiency, which may be opportunities for Society to be involved. Final decisions on Society's involvement will be included in the final work plan.

Mr. Rakheja reported that UNEP has been very involved in the developing world.

Mr. McQuade reported that funds from developed nations are contributed to help support developing nations. Those funds are used for training programs, among other things. He suggested that there are a lot of opportunities for Society if we can continue to expand on this relationship.

DISCUSSION ON REHVA INVOLVEMENT WITH DECARB CONFERENCE

Mr. McQuade reported that certain national associations were not happy that Society conducted a decarbonization conference in their country and they were not asked to be involved. He advised that it was unlikely that they could be involved in the conference at this point as so much planning had already taken place. He also emphasized with them that Society is not a threat as we are different types of organizations.

A summit between the TFB D ExCom and the REHVA decarb group was requested before January 2024. The goal of the summit would be to provide an overview of what the two groups are working on separately as it relates to decarbonization. Also proposed an event in the spring between the two organization's boards; the hope is that a higher-level gathering may provide broader interaction between the two organizations and build comradery.

Ms. Scoggins agreed that there are some things that REHVA has asked for regarding the decarbonization process that cannot be done because we are too far down the road. She reported that a personalized invitation to the conference would be sent.

She asked if there was consensus on the proposed responses, shown in blue in the attachment to the agenda and shown on screen.

Mr. Knight expressed his opinion that REHVA does want to collaborate with Society; they have reached out two years in a row now, indicating that they want to be more engaged. He suggested that Society do more in collaboration with REHVA. He expressed his opinion that increasing collaboration would improve the relationship between the organizations and could possibly provide Society with new members and/or increased member engagement.

Mr. Littleton provided additional background information on the Spanish association, stating that they have never been pleased with the ASHRAE Chapter in Spain. He expressed his opinion that there is a tug of war between REHVA and the national associations.

He reported that Society is a really strong supporter of the REHVA CLIMA conference. He expressed his hope that similar support would be extended for Society's decarbonization conference in Madrid. He agreed that Society would be stronger with their support and that steps are being taken to repair that relationship. He reiterated that it is too late for REHVA to participate in the ways they requested for this conference.

Mr. Giometti reported that Mr. Sepulveda has been serving as the point person for the upcoming decarbonization conference. He reported that Eurovent signed on as an endorser for the conference. In total, around \$150,000 in sponsorships has been raised so far.

There was consensus that Mr. Littleton would respond back to REHVA and copy the appropriate members from both organizations.

SALES OF STANDARDS/MEMBER BENEFITS MOVING FORWARD

Ms. Scoggins reported that this discussion item was added to the agenda after previous discussions at the BOD. She stated that there may not be an immediate impact but that there will likely be an impact over time.

Mr. Knight stated that there is value in aggregators. He expressed that he was not convinced that Society was going to lose significant revenue over time.

Mr. Littleton reported that income from aggregators, or third-party distributors, would be preserved but that Society would still see a slow burn decline in standards income over time. He expressed agreement that because of the convenience factor for major corporations, the third-party distribution model would continue to be profitable.

He reported that 90% of Society's revenue comes from the top ten selling standards.

Mr. Owen reported that there hadn't been much a decline in sales of standards in over a decade. He suggested that if there are changes, that they would be more evolutionary.

Mr. McQuade stated that any publication that is referenced in legislation would be at stake.

Ms. Scoggins asked the group how Society can address sales of standards before it becomes an issue, if there is consensus that it will become an issue. She asked if membership models needed to be revisited. The floor was opened for discussion. A summary of that discussion is below:

Do think that we need to get serious about our membership model and look to the future from all aspects, standards just being on feature of it. Things are changing and Society should get ahead of the curve.

Strongly believe that we should have a higher tier cost model that would present a four-figure fee and give members access to everything. Complimentary to that, members involved in Society at a higher level, could receive the top tier access at the normal rate. This discounted top tier access would be a way to say 'thank you' to the members that put in a lot of time.

At this point, the writing is on the wall. Is an opportunity to take a negative and spin it as a positive. Also, a way to further justify the cost of membership.

See this as bigger than any one entity of Society can handle. See this as something that will have to be a Presidential Ad Hoc that would extend past this Society Year.

Agree. See this as supporting next year's Society theme as well.

Not enough time to make changes for next Society Year.

Agree. Suggest changes for a membership model change in Society Year 2025-26. Need members from all the councils and Finance Committee to be involved.

Members of ExCom were asked to send names of members and/or groups within Society that should be involved in the proposed new Presidential Ad Hoc.

It was suggested that there should be equal participation from all three councils.

Mr. Smith and Mr. Austin volunteered to serve.

Ms. Scoggins and staff will set up the new Membership Model and Benefits Presidential Ad Hoc, creating a charge and requesting members to participate. The goal is to have the group ready to meet for the first time in Chicago.

AI - 19

NEW BUSINESS

EMPOWER RESEARCH PROPOSAL

Mr. Littleton reported that Empower is a very large and successful firm that has funded two or three design guides at about \$100,000 each. He reported that representatives from Empower flew to Atlanta to meet with leadership and discuss the possibility of funding a research project to develop the next generation of district cooling systems that don't use a lot of water.

He reported that staff has reached out to several national labs to see if there would be any issues with a US based national lab doing research work with a company based in Dubai. Those contacted indicated that they would be interested.

Empower was asked to provide a brief synopsis on the research project (ATTACHMENT A).

Mr. Littleton asked for guidance and input on Society's policy for receiving funds targeted at specific research. He expressed his opinion that as long as Society is committed to following the science, funded research projects are acceptable.

He reported that in addition to Empower, Daikin also expressed interest in funding a research project to investigate inverter technology and the impact on adopting better technology.

He expressed his opinion that Society leadership does have the right to accept funded research grants as we see fit.

The floor was opened for discussion. A summary of that discussion is below:

This is great news that will supplement our research program. Also brings technical value.

Not sure how this would be different from an unsolicited research project. Suggest charging overhead costs, similar to a university.

In this case, would the research funding for this be coming from the company? Looking at it more as contract research and that includes overhead that was previously mentioned. With set objectives and deliverables, the science will drive what should be done.

The difference between this and an unsolicited proposal is where the funding comes from and no matter the outcome of the research, the funder agrees to allow the outcome to be published.

Suggest that the proposal be sent to RAC with a request for a research proposal. Once the overhead costs are known, would go back to Empower.

Can't solicit the project in advance if we haven't solidified the funding. There is a lot of work involved before we go out for funding. Don't have a procedure for these types of proposals.

Agree. RAC needs to be engaged, but these types of proposals do not line up with our traditional research proposals. So, RAC is the proper body, but this is a special case.

Suggest charging for exploration costs as well. Don't think we should utilize volunteer and staff time before we have a financial commitment from the company. Suggest we tell them that we can explore it further for \$XX amount of money.

Need to come up with an investigative cost for this project, who would do the research, and how much the project would cost. Empower would like this to at least be started by the Chicago meeting.

Empower is also looking for a funded guide to be produced that would ultimately become a standard. They are willing to fund the standard as well.

Suggest signing a simple memorandum of agreement.

Suggest enlisting a special project subcommittee to Tech Council.

There was consensus that the immediate action is for Mr. Littleton to respond to Empower that seed money is needed to move the project forward and determine if they are willing to commit to that. If they are, next necessary steps will be taken.

Mr. Littleton and Ms. Reiniche will respond to Empower with the cost involved to investigate a research project as well as the development of a standard. Work to flush out what Empower would like to have signed in Chicago.

AI - 20

UPCOMING MEETINGS

Ms. Scoggins reviewed ExCom's upcoming meetings.

It was decided that the meeting on October 31, 2023 would be cancelled. The meeting on November 28, 2023 was changed to November 21, 2023 from 9:00 – 10:30 a.m. ET.

EXECUTIVE SESSION

Executive session was called at 11:34 a.m.

Open session reconvened at 11:52 a.m.

ADJOURNMENT

The meeting adjourned at 11:52 a.m.

A handwritten signature in black ink, appearing to be 'JH Littleton', with a horizontal line extending to the right from the end of the signature.

Jeff H. Littleton, Secretary

ATTACHMENTS:

A. Empower Research Brief



Research Study on Third-Generation District Cooling Systems - Brief Description

Background

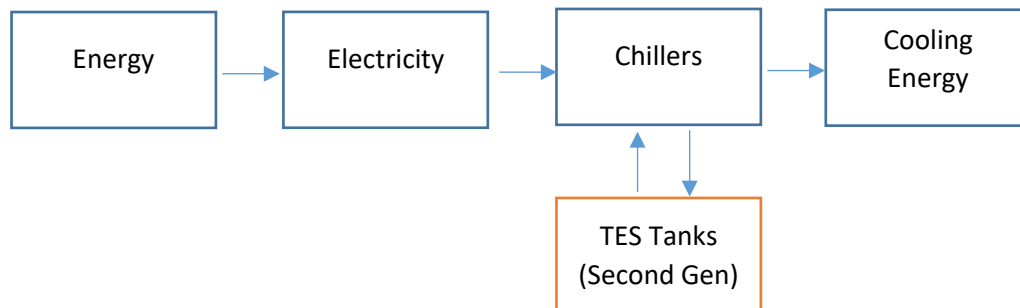
District cooling is an advantageous, environmentally friendly and reliable solution for space cooling in large-scale, high-density developments, such as business districts, airports, university campuses, residential towers, shopping malls and hospitals. The district cooling system relies on a centralised cooling plant that provides chilled water that is used to cool buildings within its connected network. The plant supplies chilled water through a network of underground insulated pipes.

District Cooling was introduced in the 19th century as a scheme to distribute clean, cool air to houses through underground pipes. The first known district cooling system began operations at Denver's Colorado Automatic Refrigerator Company in late 1889.

Generations of DC systems

The first-generation or traditional DC systems, consisted of a centralized plant that produces and distributes chilled water to the connected buildings and receive the return hot water. The water is again chilled when it circulates through the cold-generation plant. Chilled water production in first-generation DC systems is controlled by the demand from connected buildings.

Second-generation DC systems use Thermal Energy Storage (TES) technology to meet the extreme peak load demand instead of putting additional pressure on chillers.



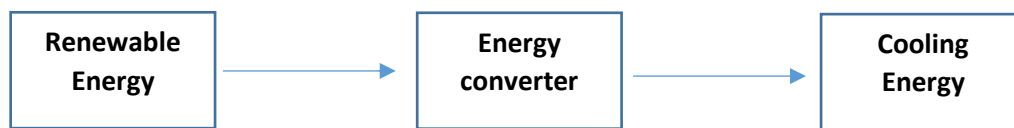
First and second generation DC Systems - Uses chillers and TES tanks to produce and distribute cooling energy

With society's continuous search for solutions that offer greater results while being less taxing on the environment, both in terms of fuel consumption and emissions, District Cooling's evolution is not yet complete. The industry is actively exploring the development of the next or third-generation District Cooling DC systems.

Research Objective and Scope

Conduct a research study to investigate and analyze the emerging trends and advancements to identify the forthcoming generation of DC technology, specifically concentrating on the transition from traditional, first-generation DC systems to innovative third-generation models. Key components under scrutiny include Thermal Energy Storage (TES), Artificial Intelligence (AI) optimization, interactive building-to-plant communication, and the seamless integration of renewable energy sources.

Next generation DC systems



Eliminating use of chillers and TES tanks and directly converting energy from renewable sources to cooling energy

Expected Outcomes of the Research study:

At the end of this research initiative, a comprehensive report to be furnished, offering valuable insights into the evolution and progression of next-generation district cooling systems. The report should comprehensively address the historical development of district cooling technology, its associated operational enhancements, and environmental benefits, as well as the potential advantages linked to the integration of AI and renewable energy sources. This insightful information is intended to serve as a valuable resource for sector experts, engineers, policymakers, urban planners, and stakeholders within the energy and cooling sectors as they deliberate upon the adoption and implementation of the next generation of DC systems.

1. **Technological Evolution:** The study shall deliver an extensive comprehension of the evolutionary journey from first-generation DC systems to third-generation models, with a specific emphasis on the pivotal technological milestones achieved at each stage.
2. **Renewable Energy Integration:** The research endeavor shall scrutinize the feasibility and the associated benefits of renewable energy-driven DC systems within the third generation. This will encompass a detailed analysis of how advanced chillers and renewable energy sources can be harnessed to directly convert energy into cooling, thereby promoting sustainability and environmental responsibility.
3. **Environmental Impact:** The study shall investigate into the environmental merits of next-generation DC systems, with a particular emphasis on their heightened efficiency, AI-driven energy management, and consequent reductions in energy consumption. It will also scrutinize how these systems can significantly contribute to sustainability and environmental conservation.



4. Operational Efficiency: In addition to assessing the operational advantages of the previous generations of DC systems, the research will focus on elucidating the potential advantages brought forth by the upcoming generation of DC technology.
5. AI Integration: The research will extensively explore the integration of Artificial Intelligence (AI) technology within third-generation DC systems, with a specific focus on its role in optimizing energy production and distribution, predicated on predictive modeling and real-time data. Furthermore, it will provide an evaluation of AI's potential to reduce operational costs and primary energy consumption.
6. Interactive Communication: The study will place a keen focus on the interactive communication systems between third-generation DC plants and interconnected buildings. It will highlight the tangible benefits stemming from real-time data exchange, enabling DC plants to dynamically adapt their energy supply to accommodate the fluctuating demands of diverse building types, thereby enhancing efficiency and cost-effectiveness.
