# **Quick Notes**

The informal session was to gather some input for ASHRAE

### **Question: Critical Issues Affecting the Industry?**

- older buildings and systems can not be repaired and must be replaced is not "flashy"; need to keep building operating; limited resources while decarbonization requirements
- climate change with limited budget; need resilient systems
- new technology with the retrofits; Owner has to maintain the systems; struggle for commissioning and operating; training for individuals for maintenance; limited resources
- how to understand and who to call to determine what went wrong
- problems prioritizing projects; what is best way to spend money; need to synchronize and plan various items
- impact of return on investment; what incentives are available; critical in planning stages;
  different in other provinces
- looking for payback or GHG reduction or solve other issues
- coordinate with internal stakeholders
- Quebec with hydro usage
- takes time but do not have time
- hybrid heat pumps for when to use
- learning curve to get into industry is high; need to continue to learn; need to have some talent
- have ideas but have limited budget
- initial cost hard to have long term effect on carbon emissions; developer concerned with initial vs operating costs
- getting financing for a green building
- now starting to get a lot of information about building
- operations have not kept up with technology; more complete building operations
- finances with incentives for green building but makes more complex
- problem attracting people to the field and then keep them
- problems with skilled trade to build and then need skilled operators; difficult to get them use to new systems; need to learn a different skill set
- how ASHRAE standards can get into technical training; get additional training and designation;
  fees and tuition to get training for who pays
- building operations is affected by operators who need to understand the systems
- shift to accounting side due to financial will then lose the operating side; technical side is lost
- building is a living thing; getting away from how built; takes time to sort out how a building operators
- takes skilled labour due to technologies in a building
- refrigerant transition; problem with skilled labour; manufacturers are the ones with knowledge on new refrigerants

#### **Question: How can ASHRAE Support You?**

- regulations are changing; workforce is changing; hard to find proper training and keep up to date
- living in an environment of change; Al is more in conversations; how to adapt and use
- need to factor in maintenance

- will there be future carbon tax?
- where to invest money?
- what are priorities?
- trying to keep business as usual
- extra costs for new systems
- how to use AI; do not have data to get proper information?
- what is continuous commissioning?
- what are best practices? Should be in ASHRAE standards but need better job of communicating what is available
- training may be good with some technical information
- need tools to manage and operate; operators need to have the tools
- management may not have the knowledge; manage people as well as assets
- growing up only on technical side is struggle on people and management side

### Question: What type of training should ASHRAE offer?

- Climate change along with smoke and flood concerns
- dealing with recirc air
- lack of knowledge as have not had to deal with new systems and operations before
- ASHRAE may have info but is not aware or where to find
- how to get information to those that need to use
- do not have tools; are there any? How to get them? How to use?
- ASHRAE free guidelines what do they provide and how to use; develop training based on guidelines
- ASHRAE is mostly volunteers so takes time to review and develop training
- could be information overload
- need to educate others; what other trades should be involved? Some might have heard about ASHRAE but not sure what it is, what is available, what they do
- getting knowledge to trades people; gap in trades and operation

# Question: How to get those involved?

- learn in person vs using technology may need to be changed
- hard to send people awa; have issue with time required
- having sync'd online training may be easier to arrange
- may not have heard of ASHRAE before
- a person ay not be able to get standards due to the expense
- some have lunch and learn by manufacturers but not reference ASHRAE standards
- have a list if standards for Consultants & Engineers that are used all the time

## Question: How to offer AHSRAE membership and who pays?

- company pay if member is involved
- access to standard by the company so may not be incentive for employee to join
- need to have local events to have a benefit
- why have multiple company employees join?

- employees not paid to attend so they have no incentive
- hard to get those involved after hours
- young people have family and other commitments
- need to have young members so that they can start to learn
- may not know that they can signup to technical committees and attend virtual