IBC Executive:
IBC Chair, Brian Ensign (Superior Essex Communications)
IBC Vice-Chair, Bob Allan (The Siemon Company)
IBC Vice-Chair, Harsha Chandrashekar (Honeywell International Inc.)
IBC Vice-Chair, Robert Lane (Robert H. Lane & Associates Inc.)

Present:
AI Shading, Catherine Chow
Aircuity, Inc., Daniel Diehl
AKM Semiconductor, Inc., Carl Bengtsson
Alea Labs, Inc., Hamid Farzaneh
Anixter, Greg Tilger
BC Hydro, Michael Li
Belimo Americas, Tom Daenzer
BELIMO Automation AG, Salvatore Cataldi
BitStream Communications, Inc., Charles Baldwin
BSRIA, Lone Hansen
CABA, Greg Walker
CABA, Sashien Godakandae
CABA, Marta Klopotowska
Canadian Gas Association, Kevin Larmer
Canadian Urban Limited, Patrick Martins
CommScope, Inc., Jane Bradshaw
Contemporary Controls, Bennet Levine
Ei Electronics, Barry Donahoe
EMBARC.biz, James Leveille
Embedded Sense, Inc., Tom Hawkett
Energy Metrics LLC, Rajendran Avadaiappan
Engenuity Systems, Inc., Tracy Markie
EnviroNetSystems, Roberto Martinez
ERG Energy Efficiency, Michael Dabbene
European Building Automation and Controls Association (eu.bac), Thomas Mueller
exp. US Services, Inc., Jon Larry
Facebook, Ayrat Nurgaleev
Honeywell International Inc., Sathish Nanjappa
1. **Agenda** - Greg Walker (CABA)

   Greg Walker (CABA) thanked everyone for attending, outlined the agenda and alerted everyone that the meeting was being recorded and will be made available to the industry.

2. **Call to Order, Welcome and Introduction** - Brian Ensign (Superior Essex Communications)

   CABA Board member and IBC Chair, Brian Ensign (Superior Essex Communications) welcomed everyone and introduced: IBC Vice-Chairs, Harsha Chandrashekar (Honeywell International, Inc.), Robert Lane (Robert H. Lane and Associates, Inc.) and Bob Allan (The Siemon Company) and IBC White Paper Subcommittee Chair Ken Wacks (Ken Wacks Associates). Brian also outlined the role of the IBC.

3. **Administrative** - Brian Ensign (Superior Essex Communications)

   3.1 Motion to approve Past IBC Minutes

   Brian Ensign (Superior Essex Communications) informed everyone that the meeting minutes from the October 12, 2021, IBC meeting were circulated and were posted on the CABA Web site in the IBC section: [www.caba.org/ibc](http://www.caba.org/ibc).

   A motion to approve the October 12, 2021, IBC minutes was moved by David Katz (Sustainable Resources Management Inc.), and the motion was seconded by Ron Bernstein (LonMark International). Unopposed motion passed.

4. **Research Update** - Greg Walker (CABA)

   4.1 2021 IBC Landmark Research “AI and Predictive Maintenance in Intelligent Buildings” - Greg Walker (CABA)
Greg Walker (CABA) gave a brief overview of this 2021 IBC Landmark Research Project, “AI and Predictive Maintenance in Intelligent Buildings”. With this project, only the funders will receive the full $130,000 of research but the Executive Summary of the research will be available to CABA Members. Greg mentioned there was still time to fund this project at $5,000 and the final webinar is scheduled on December 15, 2021.

Nineteen (19) CABA members funded this research project:
4.2 Annual “BACS Market Sizing North America” - Greg Walker (CABA)

Greg Walker (CABA) gave a brief overview of a new, invitation-only, market sizing study focusing on building automation control systems.

Eight (8) CABA members have agreed to fund and participate in this research project:

5. “Reducing Smart Building Complexity with a Smarter Stack” - Harsha Chandrashekar (Honeywell International, Inc.), Anto Budiardjo (Padi, Inc.) and Tracy Markie (Engenuity Systems, Inc.)

Description: Created by members of Monday Live! The Smarter Stack is a game-changing open-source presentation framework created to describe and understand the components necessary to make buildings smarter.

Contact Information:
Anto Budiardjo: anto@padi.io
Tracy Markie: tracy@engenuity.com

Source Links:
Smarter Stack
6. **White Paper Sub-Committee Update** - Ken Wacks (Ken Wacks Associates)

An overview was given of the IBC White Paper review process, completed IBC White Papers and papers in progress. IBC White Papers are secondary literature review articles that are approximately 10-20 pages in length. These papers are written and distributed free of charge to inform the industry. For the papers to be approved by the IBC White Paper Sub-Committee (WPSC), they must have significant technical material of relevance to IBC members. They must not contain marketing material or promote an agenda. Any CABA member can and is encouraged complete the new one (1) page white paper proposal template and submit it to klopotowska@caba.org.

All completed and approved CABA White Papers are placed in the CABA Public Library, Members Library, CABA NewsBrief, CABA Twitter Feed, CABA LinkedIn Group and promoted at industry events. To view the IBC White Paper terms of reference, previous IBC White Papers and additional information, please go to: [www.caba.org/ibc](http://www.caba.org/ibc). All completed CABA White Papers, and those under development, can be found at: [www.caba.org/whitepapers](http://www.caba.org/whitepapers).

**IBC White Paper Sub-Committee:**
- Ken Wacks Associates, Kenneth Wacks
- Consultant, Steve Samson
- Frost & Sullivan, Dilip Sarangan
- National Research Council Canada (NRC), Heather Knudsen
- Sustainable Resources Management Inc., David Katz

If you or someone that you know would like to join one (1) or more of the following White Paper working groups, please contact Marta Klopotowska (CABA) at klopotowska@caba.org.

6.1 **Recently Completed:**

**“The Commercialization of LiFi”**

Ken Wacks (Ken Wacks Associates) gave an overview of this paper and those in the Working Group.

- Wharton County Junior College (Chair)
- BKS Digital Connectivity Solutions
- Control4
- CRANTEC
- sinilux
- Du
- GETAC
- Ken Wacks Associates
- Li-Fi LED CI
- National Electrical Manufacturers Association (NEMA)
- Nav Wireless Technologies Pvt. Ltd.
- Nokia
- Orange
- PureLiFi
- Quantum-Resistant Crypto (QRCrypto SA)
- Telecommunications Industry Association (TIA)
- University of Strathclyde
“Bipolar Ionization and its Contribution to Smart and Safe Buildings”
Ken Wacks (Ken Wacks Associates) gave an overview of this paper and those in the Working Group.

- Pure Air Control (Chair)

6.2 In Progress:

“Impacts of Automated Shading in Building Projects”
Ken Wacks (Ken Wacks Associates) gave an overview of this paper.

- TRC Energy Services (Chair)
- Axis Lighting Inc.
- Draper, Inc.
- exp. US Services, Inc.
- Ken Wacks Associates
- Lawrence Berkeley National Laboratory (LBNL)
- Legrand North America
- Lutron Electronics Co., Inc.
- Mecho

- NYSERDA (New York State Energy Research and Development Authority)
- PLC Multipoint, Inc.
- Somfy Systems, Inc.
- Sustainable Resources Management Inc.
- Vistar Energy Consulting
- Window Products Management

“Fire Alarm Systems in Buildings”
Ken Wacks (Ken Wacks Associates) gave an overview of this paper.

- Canadian Fire Alarm Association (Chair)
- AML Encore Corp./Canadian Fire Alarm Association
- exp. US Services, Inc.

“Architecting Intelligent Self Learning Adaptive Smart Campus Framework for Smart Cities”
Ken Wacks (Ken Wacks Associates) gave an overview of this paper.

- NAVTAT Solutions (Chair)

“Assuring Healthy Buildings using Smart Technologies”
Ken Wacks (Ken Wacks Associates) gave an overview of this paper.

- D&M Engineering (Chair)
- Delos Living LLC
- International Corporate Expansion (ICE) / XME.digital
- Johnson Controls, Inc.
- NYSERDA

- Parity, Inc.
- Sustainable Resources Management Inc.
- TIA Telecommunications Industry Association (TIA)
- Yorkland Controls Ltd.
7. **Other Business** - Brian Ensign (Superior Essex Communications)

7.1 **Other new IBC business** - Brian Ensign (Superior Essex Communications)

Brian Ensign (Superior Essex Communications) made a call for new business related to future IBC Guest/Keynote presentation topics and speakers, new IBC White Papers, new research projects and meeting ideas, etc.

David Katz (Sustainable Resources Management Inc.) proposed that a future white paper could examine the “Build Back Better” effort and deep retrofits in North America, and how to use building automation to get to these deep retrofits.

8. **Announcements** - Brian Ensign (Superior Essex Communications)

8.1 **Past Events Overview**
- **Greenbuild** - September 21-23 | San Diego, CA USA
- **LightFair** - October 25-29, 2021 | New York, NY USA
- **Realcomm | IBcon** - November 2-3, 2021 | Scottsdale, AZ USA
- **The Buildings Show** - December 1-3, 2021 | Toronto, ON Canada

8.2 **Upcoming Events**
- **CABA Annual General Meeting** - December 9, 2021
- **BICSI** - January 30 - February 3, 2022 | Orlando, FL USA
- **AHR Expo** - January 31 - February 2, 2022 | Las Vegas, NV USA

9. **Adjournment** (1:30 PM ET) - Brian Ensign (Superior Essex Communications)

**Next IBC Meeting, Mid-February 2022**

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CABA IBC meetings are open to CABA Members and invited guests, and everyone is encouraged to participate. [CLICK HERE](#) for more info on the IBC, past minutes, participants, and terms of reference. Any CABA Member that attended as a guest will be added to the IBC unless they notify the CABA office by December 17, 2021 that their name should not be added. Non-CABA members that attended this meeting as a guest, should contact Marta Klopotowska klopotowska@caba.org, to indicate if they wish to join the IBC or CABA. [CLICK HERE](#) for more information on the CABA Benefits and please circulate them to others in your organization.

Regards,

Greg Walker, CAE
CEO
Continental Automated Buildings Association (CABA)
Email: walker@caba.org
Phone: 613.518.6742
Web site: [http://www.caba.org](http://www.caba.org)

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