



CABA Intelligent Buildings Council (IBC) Meeting Minutes

Thursday, July 27, 2017, 12 NOON – 1:30 PM (ET) via Webinar

IBC Chair, Trevor Nightingale (National Research Council)
IBC Vice-Chair, Bob Allan (The Siemon Company)
IBC Vice-Chair, Robert Lane (Robert H. Lane & Associates Inc.)

Present:

CABA, Andrew Glennie
CABA, Greg Walker
CABA, Ron Zimmer
CABA, Sashien Godakandae
CSA Group, Leila Jula
CSA Group, Ryan Franks
Eagle Technology, Inc., Harshad Shah
ESC Automation Inc, Tom Westendorf
Finn Partners, Karen Omholt
Frost & Sullivan, DJ Ghale
Frost & Sullivan, Konkana Khaund
Public Services and Procurement Canada, Dylan Peaks
Honeywell International, Inc., Roy Kolasa
IHS Markit, Bryan Montany
IHS Markit, Justin Siller
Independent Consultant, Thomas Irpan
JLL, John Hampton
JLL, Mike DeNamur
Leviton Manufacturing Co., Inc., Riley Lehecka
MechoSystems, Inc., William Maiman
Navigant Research, Noah Goldstein
New Buildings Institute, Alexi Miller
National Research Council, Trevor Nightingale
OSRAM Inc., Jos Bruins
Public Services and Procurement Canada, Vince Catalli
PLC Multipoint, Inc., Joseph Briscoe
PLP Architecture, Ron Bakker
LonMark International, Ron Bernstein
Siemens Industry, Inc., Maria Marks

Southwire Company, LLC, Juan Galindo
Sustainable Resources Management Inc., David Katz
TELUS, Danny Sran
Texas A&M University, Juan-Carlos
The Siemon Company, Bob Allan
Trifecta Research, Linda MacKenzie
United Technologies Research Center (UTRC), Tim Wagner

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** - Trevor Nightingale
(National Research Council)

IBC Chairman, Trevor Nightingale (National Research Council) welcomed everyone and introduced: IBC Vice-Chair Bob Allan (The Siemon Company), IBC Vice-Chair Robert Lane (Robert H. Lane & Associates Inc.), IBC White Paper Sub-Committee Chair Ken Wacks (Ken Wacks Associates), Ron Zimmer (CABA) and Ron Bakker (PLP Architecture). Trevor also outlined the role of the IBC and explained that he was appointed as IBC Chair by the CABA Board of Directors. Debra Becker (Honeywell International, Inc.), former CABA IBC Chair was appointed to become CABA Chairwoman of the Board at the same meeting.

3. **“The Edge Building: The World's Greenest and Smartest Building”**
Presentation from PLP Architecture (30 min) – Ron Bakker (PLP
Architecture), Greg Walker (CABA)



Greg Walker (CABA) introduced Ron Bakker (PLP Architecture). Ron gave a 30 minute presentation on “The Edge Building: The World's Greenest and Smartest Building”. The recorded presentation and PPT can be viewed at

www.CABA.org/ibc. In addition, there is an excellent short YouTube video on The Edge that can be viewed at: <https://www.youtube.com/watch?v=JSzko-K7dzo>

4. Administrative - Trevor Nightingale (National Research Council)

4.1 Motion to approve Past IBC Minutes

Trevor Nightingale (National Research Council) informed everyone that the meeting minutes from the February 14, 2017 IBC meeting were circulated and were posted on the CABA website in the IBC section: <http://www.caba.org/IBC>.

Motion to approve the February 14, 2017 IBC minutes was moved by David Katz (Sustainable Resources Management Inc.) and the motion was seconded by Ron Bernstein (LonMark International). Unopposed motion passed.

4.2 Motion to nominate Harsha Chandrashekar as a new IBC Vice Chair

Trevor Nightingale (National Research Council) informed everyone that a call was made for a new IBC Vice-Chair position and Harsha Chandrashekar (Honeywell International, Inc.) expressed his interest. Trevor gave a brief overview of Harsha's experience in the intelligent building field with Honeywell International, Inc.

Motion to nominate Harsha Chandrashekar as a new IBC Vice Chair was moved by Bob Allan (The Siemon Company) and the motion was seconded by David Katz (Sustainable Resources Management Inc.). Unopposed motion passed.

5. Research Update - Trevor Nightingale (National Research Council), Greg Walker (CABA), Bob Allan (The Siemon Company)

5.1 "Improving Organizational Productivity with Building Automation Systems" Update - Trevor Nightingale (National Research Council)


**Improving Organizational Productivity
with Building Automation Systems**
BOUTIQUE MULTI-CLIENT RESEARCH PROJECT



Trevor Nightingale (National Research Council) gave a brief overview of this \$150,000 US CABA Boutique Multi-Client Research Project. Due to the importance of this research, the research funders have generously and unanimously decided to release the full research for free to the entire industry. [CLICK HERE](#) to download the full research report and presentation.

CABA, the National Research Council (NRC) and the IBC are planning to pursue Phase 2 of this research shortly. Phase 2 will deploy the productivity frameworks from Phase 1 using partner-supplied human resources and real-estate data to demonstrate the value of specific building features and technologies. If you would like to know more about Phase 2 of the research or would like to join Phase 2 please contact Greg Walker (CABA) at walker@caba.org.

Seven (7) CABA members funded Phase 1 of this project:



5.2 “Intelligent Buildings and the Impact of the Internet of Things” Update
- Greg Walker (CABA)


CABA
**Intelligent Buildings and the
 Impact of the Internet of Things**

LANDMARK RESEARCH REPORT



Greg Walker (CABA) gave a brief overview of this \$150,000 US CABA 2016 Landmark Research Project. This research was recently completed. If your organization was a funder and you have not received the full research, please contact Greg Walker (CABA) at walker@caba.org. The Executive Summary of this research is available to all CABA members via the CABA Members Library, to access this library [CLICK HERE](#) or contact the CABA office.

Twenty-Six (26) CABA members funded this research:



Only the funders or those who purchase the report will receive the full research.

This research is available for sale on October 7, 2017 at a CABA Member price of \$4,900 US. If you would like to purchase this report or if you have any questions, please contact Greg Walker (CABA) at walker@caba.org

**5.3 New “Intelligent Buildings: Design and Implementation” - Bob Allan
 (The Siemon Company)**



**Intelligent Buildings:
Design & implementation**
LANDMARK RESEARCH REPORT



Bob Allan (The Siemon Company) announced the new IBC research project for 2017, “Intelligent Buildings: Design and Implementation”. CABA and the IBC are actively seeking funders and participants of this research, if you would like to know more about receiving this research and becoming a funder please contact Greg Walker (CABA) at walker@caba.org.

This \$150,000 US research will address the theory and application of technical design in Intelligent High-Performance Buildings from the perspective of architects, building engineers, designers, OEM hardware/software providers, service providers and facility managers. Topics that will be covered include: automated lighting and shading, system integration, HVAC configurations, real-time controls, comfort and productivity, security and access control. For more information, [CLICK HERE](#).

Sixteen (16) CABA members are currently funding this research:



Only the funders will receive the full research.

6. White Paper Sub-Committee Update - Greg Walker (CABA)

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. In order for the papers to be approved by the IBC White Paper Sub-Committee

(WPSC), they must contain significant technical material of relevance to IBC members – it must not contain marketing material or promote an agenda. Any CABA member can, and is encouraged to, bring forward a 1-2 paragraph white paper proposal to the WPSC. If needed, CABA will secure a writer and/or a working group for the paper. All completed and approved IBC 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: <http://www.caba.org/IBC>. All completed CABA White Papers can be found at: <http://www.caba.org/White-Papers>.

IBC White Paper Sub-Committee:

Ken Wacks Associates, Ken Wacks (Chair)
Frost & Sullivan, Dilip Sarangan
Independent Consultant, Brittany Hack
National Research Council, Heather Knudsen
Public Works & Government Services Canada (PWGSC), Marek Dziedzic
Siemens Industry, Inc., Raphael Imhof
Sustainable Resources Management, 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 Greg Walker (CABA) at walker@caba.org.

6.1 Recently Completed:

"Intelligent Building Advances in the Quick Service Restaurant Industry"

Working Group

Frost & Sullivan, DJ Ghale (Chair/Author)
Arrow Electronics, Steve Weeres
AT&T, Matt Beattie
BUILDINGCONTEXT.me, Therese Sullivan
Carpigiani Group, Giovanni Virgilli
Carpigiani Group, Roberto Lazzarini
Frost & Sullivan, Seth Cutler
Schneider Electric, Gina Elliott
Small Box Energy, Tracy Markie
Small Box Energy, Matt Berbner

DJ Ghale (Frost & Sullivan) gave an overview of this paper. This complimentary paper can be viewed by the IBC and industry by going to: <http://www.caba.org/White-Papers>.

6.2 In Progress:

“EMerge Alliance Hybrid AC/DC – Part 2”

Working Group

EMerge Alliance - Brian Patterson (Chair/Author)

Greg Walker (CABA) gave an overview of this paper.

“Smart Cities”

Working Group

Electro-Federation Canada, Bill Bryans (Chair/Author)

Frost & Sullivan, Roberta Gamble (Chair/Author)

ABB, Carolina Gallo

AHAM (Association of Home Appliance Manufacturers), Bruce Rebel

Bristol City Council, Caroline Twigg

Bristol City Council, Stephen Hilton

Canadian Advanced Technology Alliance (CATA), Katherine Thompson

Canadian Automated Vehicles Centre of Excellence (CAVCOE), Barrie Kirk

Canadian Chamber of Commerce, Warren Everson

Canadian Electricity Association, Francis Bradley

Canadian Open Data Exchange (ODX), Kevin Tuer

Canadian Urban Institute, Peter Halsall

Canadian Water Quality Association, Kevin Wong

City of Atlanta, Keith Robinson

City of Atlanta, Megan O'Neil

City of Edmonton, Roxanne Kits

City of Toronto, Grant Coffey

City of Toronto, Jesse Coleman

City of Toronto, Prashant Bhalja

City of Toronto, Susan Viegas

City of Toronto, Ulrica Ho

City of Vaughan, Frank Di Palma

Consultant (Former Manitoba Hydro), Ed Tymofichuk

Consumer Technology Association (CTA), Bill Belt

CSA Group, Stephen Brown

Ernst & Young LLP, Tracey DeLeeuw

Etron Energy Corp., Daniel Roman

Information Technology Association of Canada, David Messer

JLL, Jiri Skopek

National Research Council of Canada, Robert Arnold

National Research Council of Canada, Simon Backer

Navigant Research, Noah Goldstein

Ontario Ministry of Research and Innovation, Brad DeFoe

Retail Council of Canada, Gary Rygus

Robert H. Lane and Associates Inc., Robert Lane

Smart Cities Council, Jesse Berst

Smart Cities Management Consultant, Mark McDonald

Sustainable Resources Management Inc., David Katz

TM Forum, Carl Piva
Unmanned Systems Canada, Sonia Higgins

Greg Walker (CABA) gave an overview of this paper.

“The Intelligent Thermostat for Multifamily Apartment Buildings”

Working Group

National Research Council of Canada, Ajit Pardasani
Radius Innovation & Development, Josh Bradshaw
Ecobee, Peter Black
Energate, Rick Szijarto
Forest City Realty Trust, Francis Gallo
Forest City Realty Trust, Gina Anselmo
Lufft, Abraham Aguilar
NEEP, Claire Miziolek
Paremus, Richard Nicholson
Siemens Industry, Inc., Gregory Robart
Sinope, Sylvain Mayer

Greg Walker (CABA) gave an overview of this paper. Greg also mentioned that the IBC is looking for an author(s) for this white paper, if you are interested please contact Greg Walker (CABA) at walker@caba.org.

"Modelling Bandwidth Demand Generated by Intelligent Buildings"

Working Group

Nordicity Group Limited, Stuart Jack (Chair/Author)
BetaRover Inc., Greg Thomas
Brookfield Global Integrated Solutions, Nuno Duarte
MechoSystems, Inc., William Maiman
Mircom, Jason Falbo
Open Connectivity Foundation, Sanjeev BA
Paremus, Richard Nicholson
PLC Multipoint, Inc., Joe Briscoe
Sustainable Resources Management Inc., David Katz
Syska Hennessy Group, Inc., Tom Grimard
Texas A&M University, Charles Culp
The Siemon Company, Bob Allan
Western University, Hanan Lutfiyya

Greg Walker (CABA) gave an overview of this paper.

“Academic Training for the Connected Home and Intelligent Buildings Industries”

Working Group

Bedrock Learning, Inc., Helen Heneveld (Chair/Author)
ESPA (The Electronic Systems Professional Alliance), Jeff Gardner (Author)

Texas A&M University, Morad Atif (Author)
Wharton County Junior College, JB Groves III (Author)
Algonquin College, Blerim Qela (Author)
Automation Federation, Dean Ford
British Columbia Institute of Technology, Andrea Linsky
CEES-Advisors, Carlos Santamaria
College of DuPage, Bob Clark
Complete Learning Solutions, Scott Bachrach
ETA International, Teresa Maher
ETA International, Bryan Allen
George Brown College, Leo Salemi
Heartland Community College, Chris Miller
Irvine Valley College, Len Pettis
Lambton College, Mehdi Sheikhzadeh
Laney College - BEST Center, Larry Chang
LonMark International, Ron Bernstein
QUEST, Richard Laszlo
Rio Hondo Community College District, Bruce Noble
Robert H. Lane and Associates Inc., Robert Lane
Seneca College, William Humber
Siemens Industry, Inc., Steve Hoiberg
Sustainable Resources Management, David Katz

Greg Walker (CABA) gave an overview of this paper.

6.6 New approved proposals looking for an author(s) and working group volunteers:

“Energy Metering and Power Quality Metering: Energy Management and Billing Services for Commercial, Institutional, Multi-Family, and Industrial Applications”

Working Group

ABB Inc., Alexander Döpfer (Chair)
Sustainable Resources Management, David Katz

Greg Walker (CABA) gave an overview of this paper.

All proposals and previously completed IBC White Papers can be downloaded at: www.caba.org/White-Papers

7. New Business – Trevor Nightingale (National Research Council)

7.1 Call for other new IBC business

Trevor Nightingale (National Research Council) made a call for new business such as: 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.) stated that the IBC should consider greenhouse gasses and carbon as part of energy and productivity in the current CABA research projects. How to use these technologies to reduce the buildings carbon footprint. Trevor Nightingale (National Research Council) said this could be a good topic for the next IBC Keynote and asked David to send more details via email.

Ron Bernstein (LonMark International) mentioned that The GridWise® Architecture Council (GWAK) (www.rb-cq.com/GWAC) is looking at how to manage the energy grid from the consumption side. How to get utilities to investigate the smart grid? How can GWAK and the IBC work together on this?

Ron Zimmer (CABA) mentioned the another CABA Landmark Research project from the Connected Home Council (CHC), Connected Home IoT Energy Roadmap. There are many utilities engaged on this research and the research will also look at the grid.

Ron Bernstein (LonMark International) stated that Cybersecurity of the grid is very important. Maybe a consortium could be formed with CABA or the IBC to look at cybersecurity of the grid.

Trevor Nightingale (National Research Council) proposed a series of talks around smart energy and the grid, looking at several topics. Ron Bernstein (LonMark International) and Trevor will talk offline concerning this.

8. Announcements - Ron Zimmer (CABA)

8.1 Past Event Overview:

- [AHR EXPO HVACR Trade Show, Jan 30 – Feb 1, 2017, Las Vegas, NV](#)
- [DistribuTECH Jan 31- Feb 2, 2017, San Diego, CA](#)
- [CABA Intelligent Buildings & Digital Home Forum, April 26 - 28, 2017, Santa Clara, CA](#)
- [LIGHTFAIR International, May 7-11, Philadelphia, PA](#)

8.2 Upcoming Event:

- [Shanghai Smart Home Technology \(SSHT\), Sept 5-7, Intelligent Buildings and Connected Home Zone, Powered by CABA](#)
- [BICSI Fall Conference & Exhibition, Sept 24-28, Las Vegas, NV](#)

- [SCTE ISBE CABLE-TEC EXPO'17, Oct 17-20, CABA Smart Zone](#)
- [Greenbuild International Conference & Expo, Nov 8-10, Boston, MA, Intelligent Building & Connected Home Pavilion, Produced by CABA](#)

Ron Zimmer (CABA) mentioned Vivint Smart Home and Kimberly-Clark were just appointed to the CABA Board of Directors. Ron also announced that Microsoft Corporation and Steelcase Inc. were in the process of being appointed to the CABA Board. Ron mentioned there are still a couple of openings on the CABA Board of Directors, for more information please contact Greg Walker (CABA) at walker@caba.org.

Ron Zimmer (CABA) talked about the great CABA outreach events at AHR EXPO and LIGHTFAIR International which attracted hundreds of attendees.

Ron Bernstein (LonMark International) suggested a joint presentation to delegates coordinated by LonMark International and CABA at the 2018 AHR EXPO. Ron Zimmer (CABA) mentioned that CABA would be willing to consider this good suggestion.

8.3 Next IBC Meeting

Trevor Nightingale (National Research Council) noted that the next IBC meeting will be held October 26, 2017 via Webinar.

9. Adjournment (1:30 PM ET) - Trevor Nightingale (National Research Council)

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CABA IBC meetings are open to CABA Members and invited guests, and everyone is encouraged to participate. More info on the IBC, past minutes, participants and terms of reference can be found at: <http://www.caba.org/IBC>. Any CABA Member that attended as a guest will be added to the IBC, unless notifying the CABA office by August 11, 2017.

Regards,

Greg Walker
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