

# ASHRAE Ottawa Valley Chapter

## Chapter Meeting #8 – 15 May 2018

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Meeting Date:	15 May 2018
Location:	Centurion Conference & Event Center, 170 Colonnade Road South
Attendance:	Total: 81
	Members: 58    Guests: 23    Students: 0
Theme:	History
Tour:	None
Tech Session:	None
Table Top:	Spartan Bioscience, History
Program:	Meeting the Goals of the Vancouver Declaration on Climate Change in Federal Government Facilities
Speakers:	Daniel Gosselin, P.Eng.
Prepared by:	Aaron Dobson

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### **Social** (17:30 – 18:18)

### **Business Session** (18:18 – 18:56)

- President Adam Graham welcome message, call to order.
- President Adam Graham introduced the Board of Governors and the Executive.
- Secretary Aaron Dobson introduced the 23 guests.
- Membership Promotion Chair Celine Baribeau introduced the 6 new members since last meeting.
- Adam Graham gave an update on the upcoming ASHRAE Golf on Monday June 4<sup>th</sup>. The Event is sold out. There are sponsorship opportunities available. Contact Rod Lancefield for details.
- Research Promotion Chair Dan Redmond mentioned they are at 110% of research promotion goal for the year. There are 2 raffle prizes. Pair of tickets to the Ottawa Redblacks pre-season opener and pair of tickets to the Ottawa Redblacks home opener.
- Adam Graham invited the companies to talk about their table-tops. Chris Harder from Spartan Bioscience talked about their legionella testing device for water in HVAC and domestic water systems.
- History Chair Ryan Dickinson talked about the History tabletop including a collection of photos, chapter minutes and manuals.
- History Chair Ryan Dickinson welcomed the 19 past-Presidents and invited them up for a champagne toast by past-President Cathy Godin.
- Honors and awards co-chair Abbey Saunders handed out Company recognition plaques which recognizes firms and organizations that support ASHRAE by allowing staff to participate with ASHRAE. The companies that were recognized were VRA, Alscott Air Systems, Master Group, Carleton University, HTS Engineering, BPA, Ainsworth, NRC – ASPM, Rodders CAS, ProEng Consulting, Smith + Anderson, Morrison Hershfield, Total HVAC, JP2G, Walmar Ventilation, Trane Canada.
- Abbey Saunders invited Peter Shaw-Wood – Student Activities Chair to present the Student Award. The Student Award is awarded annually and presented to an ASHRAE

student member based on overall performance and achievement for the year. The award is presented in memory of Noel Kirby, a past-President. Peter Shaw-Wood presented the award to Harjit Singh of Carleton University. Harjit is a graduate student studying Mechanical Engineering at the University of Ottawa. He completed his bachelor's degree in technology at the Baba Banda Singh Bahadur engineering college in Fatehgarh Sahib, India. Over the past two years he has had attended ASHRAE events and has been advocating on behalf of the organization to his peers. His leadership in this regard has resulted in a joint entry from Carleton and U-Ottawa into the ASHRAE Student Design Competition, which Harjit and his team are tackling on top of their already heavy engineering course load. He has also taken on the position of Student Chapter President of U-Ottawa which will begin in the fall of 2018 and last for the remainder of his studies.

- Abbey Saunders awarded the Baker-Oakes Award of Excellence, in honor of two long standing chapter members who passed away too soon, to Chris Fudge. The Baker-Oakes Award of Excellence is presented to acknowledge a member's dedication and outstanding service to the Ottawa Valley Chapter. Chris Fudge has been a chapter member since 2003 and has been involved in various capacities including Student Activities and CTTC chair and most recently serving as a member of the chapter Executive. In addition, Chris has served as Governor while representing our chapter at the regional level as RVC CTTC. Chris Fudge was not in attendance to accept the award.
- Abbey Saunders awarded the Anniversary Award that is awarded every 5 years in honor of the Chapters anniversary to Mike Swayne. Mike Swayne is a long-standing member who has contributed much towards the historical and continued success of the chapter. A chapter member since the 1980's and member of the telephone committee, member of the BOG, executive and member of the reception and research promotion committees. Mike was chapter President in 2000 and recipient of the Al Oakes Award of Excellence in 2001. Mike Swayne thanked the chapter for the award and praised the Chapter on its growth, strength and continued success.
- Adam Graham congratulated the award winners.

Business Session Finished at 6:56pm

***Dinner*** (18:55 – 19:47)

- Dinner served at 6:55pm
- Dinner was Tomato soup and Garden Salad for starter. Roast beef with potatoes, broccoli, red pepper and pear for main and chocolate cake for dessert

***Evening Program*** (19:47 - 20:58)

- Evening program started at 7:47pm.
- Dan Redmond invited Dan Gosselin to draw the raffle tickets donated by Don Weekes of Inair Environmental. The raffles were won by Aaron Dobson and Bob Kilpatrick. Dan Redmond thanked everyone who donated. \$520 was raised for ASHRAE research.
- Adam Graham thanked the Board, Executive, Committee chairs and all the volunteers of the chapter. Special thanks to Sandy Taylor for help in running the chapter and special thanks to Abbey Saunders for support and advice throughout the year. Adam mentioned he has been honored to serve as Chapter President and excited to join the ranks as past-President. Adam mentioned he has full confidence in Dan Redmond as incoming President and ask everyone to give him the full support.
- Nominations and Awards Co-Chair Steve Moons thanked former nominations and

awards chair Bob Kilpatrick. Steve Moons proceeded to install the new Executive and Board of Governors. Steve mentioned that Chris Fudge is not able to ascend in his role. Steve Moons called up Dan Redmond for Chapter President, Aaron Dobson for President-Elect, Adam Moons for Treasurer, Adrienne Mitani for Secretary, and Joe Della-Valle, Celine Baribeau, Jacob Hough, Chris Frauley, Peter Shaw-Wood as the Board of Governors.

- Dan Redmond gave his opening speech as President of the Ottawa-Valley Chapter. Dan Redmond invited Adam Graham to present a certificate of appreciation from the Chapter and the past-Presidents pin. Dan thanked Adam for his leadership and dedication to the Chapter.
- Dan Redmond introduced the speaker Dan Gosselin and gave an overview of the presentation which will focus on the importance of relationships, communication and collaboration between all stakeholders to achieve aggressive greenhouse gas emission reductions while maintaining long-term fiscal responsibility. The primary mandate is to work closely with PSPC to achieve carbon neutrality in their facilities across the country by 2030.
- Dan started the presentation talking about the Vancouver Declaration on Clean Growth and Climate Change - March 3, 2016. Canada stands at the threshold of building our clean growth economy. This transition will create a strong and diverse economy, create new jobs and improve our quality of life, as innovations in steam power, electricity and computing have done before. We will grow our economy while reducing emissions. The first Ministers declaration is to 1.) Increase the level of Ambition which is to implement GHG mitigation policies in support of meeting or exceeding Canada's 2030 target of a 30% reduction below 2005 levels of emissions, including specific provincial and territorial targets and objectives. 2.) Promote Clean Economic Growth to Create Jobs which is to implement measures grounded in the view that clean growth and climate change policies are of net economic, environmental and social benefit to Canadians. 3.) Deliver Mitigation Actions which is to foster investments in clean technologies to reduce the GHG emissions associated with the production and consumption of energy, including renewable and alternative energy, energy efficiency and storage, and other technologies which may include carbon capture and storage. 4.) Increase Action on Adaption and Climate Resilience which is to implement strong, complementary adaption policies within our respective jurisdictions to address climate risks facing our populations, infrastructures, economies and ecosystems. The long-term goal is 80% reduction by 2050.
- Dan mentioned that PSPC has a target to achieve carbon neutrality in their facilities by 2030. The purpose for the targets is to draw a road map for other Government departments to follow.
- Dan talked about what BGIS does for PSPC which is facility management. BGIS has various contract - Pacific, Western Canada, Ontario, Ottawa-Gatineau, Parliament/Tunney's Pasture Campus, Quebec and Atlantic Canada. BGIS oversees the management of 5M+ square meters on behalf of the Government that is leased and owned and of that 3M square meters are property owned by the Crown. BGIS is in year 4 of 7 with an option to renew an additional 6 years for a total of 13 years.
- Dan talked about the stakeholder engagement with PSPC, NRCan, Federal Departments and BGIS. BGIS is working with PSPC to create the road map to carbon neutrality.
- PSPC developed the Carbon Neutral Portfolio Plan which is the road map to achieve carbon neutrality at a macro level across the country. This includes activity-based

workplace densification and divestment, projects such as LED lighting, retro-commissioning, smart buildings, solar PV and electricity procurement and other fuels. The biggest reduction will be from deep retrofits which will be re-engineering of HVAC and lighting systems. This will account for 26% in reduction of GHG.

- Dan talked about the GHG Options Analysis Methodology and mentioned they have been directed to look at 4 options. Option 1 is the minimum performance which is the National Energy Code for new buildings. Option 2 is everything that can be done to reduce greenhouse gas emissions if it is cost neutral over 25 years. They look at life cycle costing of the different options and if it is equivalent to the first option over 25 years even though the capital is much more, they can consider it. Option 3 is looking at everything they can possibly put into the building to maximize GHG emission reduction with no life cycle costing consideration of 25 years. This is so all technology can be considered within this option to provide long term benefit. Option 4 is a hybrid option and the recommended option. The Consultant, BGIS and Client stakeholders are sitting down and looking at all the options to determine what really makes sense which is between the 25-year life cycle costing neutral and the maximum GHG reduction and looking at incremental cost that will bring a lot of benefit. For single-disciplinary projects such as equipment replacement or repairing equipment they are being asked to select options to maximum GHG emission and are cost neutral over 25 years.
- Dan talked about the flagship facility for PSPC at 25 St. Clair in Toronto where they went with the maximum GHG reduction option. The energy consumption and GHG emissions were discussed with the different options. The maximum GHG reduction option had the best energy consumption but cost \$13M more over the 25-year life cycle costing neutral. They are seeing long term benefit in not just looking at initial cost.
- Dan mentioned that >75% of emissions are from 50 buildings. A short-term target is 25% GHG reduction by March 31, 2021 (2014-2015 Baseline). 43 studies are currently on the go which are looking at the 4 options to implement to achieve the short-term goal of GHG reduction. The focus is on the high GHG buildings, looking at a 25-year life-cycle costing neutral, working with PSPC on their smart building initiative and optimized operations through the facility management side.
- Dan talked about how the aggressive carbon reduction will be scaled from the carbon neutral studies to the implementation.
- 197 Energy Projects have been implemented during the 2017-2018 program of work.
- All projects will be integrated with Operations. Throughout the studies, the operations group has been at the table to be aware of the decisions being made and to engage them in the process. Monitor and continuously optimize the system to maintain long term savings.
- Dan talked about the technology they are using. 75%+ GHG reduction is with technology that already exist including good building envelope, LED lighting, move to dedicated outdoor air systems with low temperature hot water / chilled water hydronic system or VRF, energy recovery ventilators, heat recovery from internal loads, optimized building automation systems, hybrid geo-exchange system, solar panels. For emerging technologies, Dan talked about battery storage, carbon sequestration, double skin wall with translucent PVs or PVs attached to envelope, electrochromic glass, green roofs, hydrogen fuel cells, maximize thermal storage, renewable biomass, run of river hydro power, vertical wind power. Any other emerging technology, especially Canadian technology.
- Questions – No 4 questions were asked

- President Dan Redmond thanking the speaker and presenting gift (commemorative coin) to Dan Gosselin from ASHRAE Ottawa Valley Chapter
- President Dan Redmond reminding members and guest to fill out evaluation form
- President Dan Redmond saying thank you, wishing everyone a safe and happy summer and see you in September.

**Meeting adjourned 8:58**