



Meeting Notes

The City of Calgary – Calgary Climate Panel – Meeting #9
 Time: 9:00am – 12:00pm, 4 December 2020
 Online – Microsoft Teams Platform

Agenda

Time	Agenda Items	Lead
9:00am – 9:15am	Welcome and Agenda	Climate Team
9:15am – 9:20am	New Panel Member and Guest Introduction	Climate Team
9:20am – 9:45am	Climate Program and Working Group Update Q4	Climate Team
9:45am – 10:10am	University of Calgary Sustainability and Climate Action	Joanne Perdue
10:10am – 10:20am	Break	
10:20am – 10:40am	Jayman BUILT – Coming Soon 2021	Dave Desormeaux
10:40am – 10:55am	Give Students a Better Future - ACEE	Gareth Thomson
10:55am – 11:25am	Climate Panel Report – Maven Strategies	Steph Gagnon
11:25am – 11:40am	Panel Discussion	All
11:40am – 12noon	Upcoming 2021 Panel Meetings, Events & Wrap Up	Climate Team

Attendance

Organization	Representative	Dec 4, 2020
Alberta Council for Environmental Education	Gareth Thomson	√
Alberta Ecotrust	Mike Mellross	√
Alberta Health Services	Dr. Nicholas Etches	
ATCO Gas	Ryan Germaine	√
BILD Calgary Region	Deborah Cooper	√
BOMA Calgary	Jay Islam	√
Brookfield Residential	Doug Owens	√
Calgary Airport Authority – Co-chair	Harris Switzman	√
Calgary Board of Education	Olena Olafson	√
Calgary Chamber of Commerce	To Be Determined	
Calgary Climate Hub	Bob Morrison	√
Calgary Emergency Management Agency	Chief Tom Sampson (alt) Tobi Bellis	√
Citizen-at-Large	Rev. Bill Phipps	√
ENMAX Energy	Justin Jacober (alt) Jennifer Lefevre	√
Fuse Collective	Ai-Linh Tran	√
Indigenous Community	Lorna Crowshoe	
Intact Insurance	Luisa Currie	√
Siemens Canada	Adrian Francese	√
The City of Calgary – Councillor	Cllr. Peter Demong	
The City of Calgary – UEP General Manager	Dan Limacher	
University of Calgary	Dr. Jennifer Winter	√
Youth Community	Logan Mitchell	√
Administrative Support		

The City of Calgary – ESM Director	Christopher Collier	√
The City of Calgary – Climate Change & Environment Manager	Dick Ebersohn	√
The City of Calgary – Climate Leader	Brit Samborsky	√
The City of Calgary – Climate Leader	Dawn Smith	√
The City of Calgary – Climate Team Member	Adrienne Beattie	√
The City of Calgary – Climate Team Member	Susan Stinson	√

Discussion

Agenda Item Notes	Actions
<p>1. Welcome and Agenda from the Chair</p> <ul style="list-style-type: none"> ➤ This meeting is hosted online and few regrets in this meeting ➤ Restatement of the fundamental mandate of the Climate Panel ➤ Land acknowledgement ➤ Overview of the agenda, action requirements, technical elements – noted that presentations will be recorded for transcription purposes ➤ Review of the package and theme for this session ➤ Restated the theme this year with COVID and economic development and climate as the intersection - we are concluding this year with <i>Climate Successes in a Challenging Economy</i> 	FYI
<p>2. New Panel Member and Guest Introduction from the Co-chair</p> <ul style="list-style-type: none"> ➤ Welcome to Chief Susan Henry, CEMA ➤ Notice of Change in representation from ENMAX. Saying goodbye to Justin Jacober and we look forward to continuing working with Jennifer Lefevre <p>Guests for Dec 4th meeting:</p> <ul style="list-style-type: none"> ➤ Joanne Perdue, Associate Vice President, Sustainability, University of Calgary ➤ Dave Desormeaux, President and COO, Jayman BUILT ➤ Steph Gagnon, Principal at Maven Strategy 	FYI
<p>3. Climate Program and Working Group Update Q4 from Admin</p> <ul style="list-style-type: none"> ➤ Q4 2020 Climate Program and Working Groups update ➤ Reference Attachment 2 in the Pre-meeting package which includes all the Climate Program activities for the last quarter ➤ Discussion about current actions and 2020 Q4 Update <p>1) Climate Mitigation:</p> <p>The Climate Team has been evolving the following projects to move us along our continuum of GHG reductions:</p> <ul style="list-style-type: none"> ➤ 2020 targeted the largest sectors and developing opportunities to collaborate on greenhouse gas actions, the first is the buildings sector 	FYI

Our team is targeting the largest sectors and developing opportunities to collaborate on GHG actions:

- Buildings Energy Program – Outcome: Identify energy use among commercial and residential buildings to enable owners to compare against others, then plan improvements, subsequently invest, create jobs and implement the changes and upgrades. For 2020 we are focusing on commercial and institutional energy benchmarking as well as residential energy labelling. All of these are in their early stages.
 - Phase 1: Launched the [Commercial and Institutional Building Energy Benchmarking Program](#) in September and we have now 164 buildings on that map; it's available from the [calgary.ca website](#)
 - Phase 2: Solar PV Potential Map, focusing on residential PV with a built-in calculator for cost and payback based on today's rates (Q4 2020)
 - Phase 3: Residential Energy Labelling, study of program options and attitudes to inform a possible program (Q1 2021)

- We have the Energy & Utilities program area – Outcome: to identify best investment approaches to energy system and new development and to align strategy, policy and programs to implement biggest GHG reductions
 - Phase 1: Develop city-wide current state energy map with both inputs and outputs for various building typologies (Q4 2020)
 - Phase 2: Forecasting impacts of multiple energy scenarios to get to 2050 GHG target (Q4 2020 – Q1 2021)
 - Phase 3: Develop 'Energy Playbook' with energy utilities, BILD, The City to identify best investment approaches to energy system and new development (Q2 – Q4 2021)
 - Phase 4: Align strategy, policies, and programs to implement biggest GHG reductions (Q4 2021 onward)

- Low Carbon Financing – Outcome: Assessment of several low carbon financing models to provide investment platform for GHG reduction actions
 - Phase 1: Complete - Feasibility assessment for 3 different approaches to energy retrofits for commercial and residential buildings (Q3 2020)
 - Phase 2: Econ Resilience Task Force request - Program design of potential program for energy loans (Q4 2020 – Q1 2021) (with support from FCM funding for program design)
 - Phase 3: Bring proposal to Council for pilot project to launch financing program (2021/2022)

- Public Infrastructure GHG Assessment – Outcome: Provide input at early stages of large infrastructure projects for low-carbon solutions and energy savings

- Current and upcoming projects: Events Centre, Arts Commons Expansion, Field House, Rivers District development opportunities (Q3 2020 – ongoing)

2) Climate Adaptation

As climate risk is geospatially and context specific, the Climate Team has been evolving the following projects to move us along our continuum of risk reduction:

- **Climate Data/Projections** – Outcome: Refined Calgary-specific climate hazards (daily climate variables out to 2080)
 - Longer term goals: integration into climate hazard models and subsequent potential impact on infrastructure typologies
 - Data complete with summary into redefined hazards and potential impacts on infrastructure typologies to be developed Q3 2020 to Q2 2021.
- **Community Climate Risk Assessment Project** – Outcome: to Identify community-scaled exposure and vulnerability to climate impacts and utilize the information to better plan and reduce vulnerabilities in our communities.
 - analysis to hazards / City-wide climate hazard mapping (GIS based) / Compound climate-risk scores for each Calgary community / Evidence-based and community specific climate policy
 - Phase 1: data collection and development of exposure and vulnerability methodologies (Sept – Dec 2020).
 - Phase 2: development of GIS mapping and community reports (Q1 – Q2 2021)
 - Phase 3: community planning policy (integration into multi-community plans and Guidebook for Great Communities (Q2-Q3 2021).
- **Public Infrastructure Climate Risk Assessment** – Outcomes: risk reduction (measures) and return on investment to build climate adapted infrastructure for long term service delivery. Its important to note here that we are looking at getting our house in order first before rolling it out to any other parties.
 - Corporate process and assessment framework for climate risk screening, risk assessment, risk reduction measures and return on investment to build climate adapted infrastructure for long term service delivery.
 - Phase 1: risk assessment process completed in 2020.
 - Phase 2: development of ROI methodology (Q1-Q3 2021)
- **Climate Risk Reporting**– Outcomes: Financial disclosure of climate risk on the corporation and the community. A Framework for annual monitoring and reporting on corporate and community climate adaptation initiatives is currently being developed and it at the very early

<p>stages. Monitoring climate events, trends and impact indicators for continuous improvement. First reporting of new indicators to be included Climate Strategy Report Update to Council (April 2021) Long term goal to include financial disclosure of corporate and community risk through adoption of TCFD framework</p>	
<p>4. Joanne Perdue, Associate Vice President of Sustainability, University of Calgary</p> <p>Context: Joanne Purdue is the Associate Vice President of Sustainability at the University of Calgary. The University of Calgary is committed to carbon neutrality by 2050 and have set an interim goal of a 50% reduction in GHG emissions by 2030. This presentation will overview of the University of Calgary’s progress in advancing its Institutional Sustainability Strategy and Climate Action Plan.</p> <ul style="list-style-type: none"> ➤ To date they have achieved a 33% reduction in greenhouse gas emissions, this despite significant growth in campus population and also built environment- this represents over 80,000 tons of annual GHG emission reductions to date, and to put that into context, that's equivalent to approximately 17 large scale wind turbines running continuously for a year every year. ➤ Differentiating the University of Calgary from the City of Calgary; The U of C building operations represent 99% of the university’s scope one and scope two greenhouse gas emissions. Because of this, the key focus areas for Climate Action Plan on supply side are: green power in decarbonization of their district energy system; demand reduction side: existing building retrofits and new building innovation which focuses on zero carbon buildings ➤ As owner operators they know firsthand the importance of designing for the highest possible levels of energy efficiency ➤ As a pathway to zero carbon performance, there is a much more costly challenge later in the asset lifecycle so investing upfront provides that operational cost savings across the full lifecycle of the asset ➤ To date - have 14 LEED Certified projects, including two Platinum Certifications, and just recently their first Zero Carbon building received certification for design under the Canada Green Building Council's new Zero Carbon Building Standard ➤ There are also three additional LEED registered projects in flight that are anticipating a Platinum Certification and two of these are also registered under the Zero Carbon Building Standard; the cumulative impacts of these projects to date is significant ➤ There are two off-grid facilities at research field stations. One is the Kluane Lake Research Station northwest of Whitehorse, Yukon and the other is RB Miller here closer to home in Kananaskis Country ➤ The McKinney Complex is their first zero carbon building design project certified for design and will undergo a second certification after they complete the Block Building which requires a full year of performance. That is a 2-stage design and operation process. The Tower employs an innovative double skin envelope with active and passive cooling and 	<p>FYI – Q/A</p>

<p>heating as well as active solar shading, as well as a double cavity - a physical space that people can move through although it's it isn't accessible but used for workers commissioning the active solar shading.</p> <p>➤ Q & A followed</p>	
<p>2. Dave Desormeaux, President and COO, Jayman BUILT</p> <p>Context: Dave Desormeaux is President and Chief Operating Officer, Jayman BUILT in Calgary. Dave has been with Jayman BUILT for 2-1/2 years and brings a fresh perspective and personal passion for smart home technology to his role. Jayman BUILT is an industry leader in sustainability. They spearheaded the introduction of BUILT GREEN® in Alberta in 2003 and registered the first BUILT GREEN® home in 2005. Jay Westman co-founded Jayman MasterBUILT in 1980 along with his late father Al. Jayman BUILT is going into its 41st year in 2021.</p> <ul style="list-style-type: none"> ➤ In Calgary Jayman BUILT has developed multifamily and single-family projects, townhomes, condominiums and seniors living as well – the most recent showcase, the Westman Village on the waterfront in Lake Mahogany, Calgary. ➤ Westman Village boasts multiple community living benefits including the Chairman's Steakhouse, live Jazz music, and hotels. <p><u>Core Performance</u></p> <ul style="list-style-type: none"> ➤ Jayman BUILT invests in state-of-the-art technology to reduce costs and energy consumption as well as enhance comfort and quality of life. Features include tankless on-demand hot water with 98 per cent efficiency rating, a two-stage furnace featuring a 96 per cent efficiency rating, triple-pane windows that retain heat from the sun while reducing heat loss, a Heat Recovery Ventilator (HRV) that recovers heat that would otherwise be wasted, LED lighting that uses a fraction of the power that conventional bulbs do, and solar panel infrastructure to install solar modules in the future¹ <p><u>Jayman SOLAR:</u></p> <ul style="list-style-type: none"> ➤ January 1st, 2019 Jayman took a bold step by including six solar panels on every house as a build standard, not an option. This was promoted through a large marketing campaign. Jayman partnered with Skyfire to do the installs. Prior to 2019, while most customers found the solar interesting, uptake was very low. ➤ A year later Jayman had 1038 solar systems installed, so that equates to almost 7000 panels. These are generating over 2 megawatts (2070 kilowatts) of solar energy from all those panels combined in Alberta. ➤ Efficiency of Install, panel, price - In 2019 prior to launching solar PV as a standard on every home they built, Jayman BUILT homes were 16% above building code with respect to energy efficiencies and well above 20% on the average Alberta home. 	<p>FYI – Q/A</p>

¹ Calgary Herald, [Core Performance: The engine of your Jayman BUILT home | Calgary Herald](#)

- **Market differentiator** - Jayman is able to leverage buying power by working closely with partnerships and trades to build capacity and reduce margins on expensive technologies and products. Working together supports increasing volume and buying power, driving costs down and increasing technology capacity. Additionally, Jayman is an incredibly efficient builder that does not compromise on quality or customer service. Customer satisfaction is over 90%, with Jayman BUILT in the top 20th percentile of all homebuilders in Canada
Jayman offers Smart-home technology and maintains the philosophy that no matter what is added to a home, it costs X, and must be valued at significantly more by the consumer- features that add the same or greater value than they cost.
- **Resale value** - One of the big things that Jayman has had trouble identifying is what the resale value of a home is with all this technology built in with respect to the mechanical room and having the Core Performance plus the solar panels – they're talking to their customers to try to determine a number
- **'Where the puck is going'** - Jayman is proud to be 2030 Building Code standard. Based on their modelling, they've done about \$2600 a year in energy savings, expected will be Energuide Zero Rated. Jayman believes that this is where the market is going and says why resist and be told you have to do it, why not get there first. Dave shared that the market share trends were very difficult with COVID and to figure out where reality is, but it is up, it's the highest it's ever been and what they do hear from their customers time and time again is- 'I get all this with the Jayman home and it includes solar panels' -hands down the decision was easy.

Jayman SMART home:

2020 January 1st, Smart Home Technology was launched for all 2020 single-family homes, with all home automation controlled with the Amazon Alexa Device.

- **'Brains' on top of 'Heart & Lungs'** – The heart and lungs of the home is the mechanical room. Jayman started to include Canadian product Ecobee Smart Thermostat standard in every home; the Ecobee thermostat was critical with respect to squeezing more energy efficiency out of the house with automated sensors, and also included cameras, smart thermostats, smart switches, smart lock, Alexa hub, and smart garage door opener; smart switches – allowing use of Amazon or Google as the hub that brings it into one place so that you can control it through your Alexa app.
- There has been a convergence in the technology industry where things are becoming very affordable, things you could buy at Best Buy, on Amazon.com and Amazon.ca - consumers no longer need to go to complex systems to have this in their home.

Smart Home vs. Home Automation

- Jayman wanted to demonstrate more affordable smart home technology and home automation that was included at the beginning of 2020. These homes are coming online now; they're finished and are configuring the smart home technology; they were Net Zero Certified and assisted by an

<p>expert contractor that specializes in the net zero certification. Jayman has always supported built green and were past leaders of Build Green installation, including wall and furnace and HVAC systems, Jayman looked at the options available and found the highest quality and most affordable option. One of the critical things Jayman is refining is home construction. As homes are becoming more tightly insulated over the years, issues with moisture are a possibility. The Ecobee Smart Thermostat mitigates this issue through temperature control via your location postal code and in-home sensors.</p> <p>Homes of the Future 2021</p> <ul style="list-style-type: none"> ➤ In 2021 Jayman BUILT will launch ‘homes of the future’ net-zero homes in Seton. While net-zero certification is important, equally paramount is the integration of Smart-home technology and eco-friendly materials. Any Jayman model will be available to buyers as a net zero home. Jayman Net Zero homes are going to affordable and will utilize a suite of Smart-home automation. [e.g. Levven Switches (Levven Electronics Ltd Edmonton) is a 100% Alberta based company. Every switch in the house, every paddle switch has no wire to it. It has no box and is not screwed into the walls and each panel switch is battery operated, it can be configured anyway you want and is completely compatible with Alexa and Google and it costs no more than doing traditional wiring to these homes]. ➤ Q & A followed 	
<p>5. Gareth Thomson, Executive Director, Alberta Council for Environmental Education (ACEE)</p> <p>Context: Gareth Thomson is Executive Director, Alberta Council for Environmental Education (ACEE). We have a big problem in Alberta: our young people lack environmental literacy, knowledge about climate, and hope for the future. When it comes to teaching students how to balance the complexities of stewarding nature, meeting energy demand, reducing greenhouse gases, and creating prosperity—our K-12 education system gets a failing grade. This presentation provided key findings from a youth poll and focus groups conducted by the Alberta Council for Environmental Education.</p> <ul style="list-style-type: none"> ➤ Most compelling: 70% of high school students are worried about their future, over 2/3 of youth agree that educating students about climate change should be a higher priority in schools. ➤ Students are struggling with key climate change concepts and have a poor understanding of our energy system. They desire to learn about energy production and have only a vague understanding of some important terms. ➤ ACEE will be working with the Alberta Government, school trustees, parents, teachers, students and business stakeholders to enhance the 	<p>FYI – Q/A</p>

<p>teacher teaching environment for climate and energy in this province and amplify it.</p> <ul style="list-style-type: none"> ➤ This is not an ideological challenge to the current government, this is in fact an invitation to Alberta to do more to prepare students for the future that they will inhabit, learning what greenhouse gases are and learning how businesses deal with the challenge, learning about the jobs they'll work in and create. ➤ ACEE wants to change the system, work with educational leaders like the Minister of Education. ➤ To the Panel: Participate in climate outreach that educates and inspires action for Calgarians whether they're in school or whether they are adults, given the serious evidence that we have. ➤ Upcoming events for ACEE Curriculum for a Sustainable Future: <ul style="list-style-type: none"> • Dec 15th – Virtual gathering for education leaders • Jan 21st – Public launch ➤ Q & A followed 	
<p>6. Stephanie Gagnon, Principal, Maven Strategy Ltd and Harris Switzman, Co-chair Calgary Climate Panel</p> <p>Context: Steph Gagnon, principal partner at Maven Strategy Ltd, and Calgary Climate Panel Co-chair Harris Switzman, presented an update on the Climate Panel Annual Report under development. This presentation to the Climate Panel is to provide an update on the Report in progress, key findings, challenges and actions. Key points from the discussion:</p> <p>Support for the report format as long as the following are included:</p> <ul style="list-style-type: none"> ➤ A minority report appendix ➤ Concerns with qualitative reporting noted ➤ Color blind friendly graphics ➤ Discussion about the realized vs projected benefits/challenges ➤ Clarity on targets (GHGs for mitigation, to be determined for adaptation) <p>Support for the reporting process to include:</p> <ul style="list-style-type: none"> ➤ Online poll that is sent, with an emailed copy to enable members to collect all answers in advance and then input them, and/or other technology such as google doc that results in the same ➤ The poll approach is limited in terms of developing agreement. Therefore, the results will be compiled and discussed at the following Panel meeting (March 2021), and a minority report section will be available for anyone to include their concerns ➤ Support that the reporting process will include City and community initiatives from 2020, but not Council decisions ➤ Request from the Reporting Subcommittee that Panel members email with any feedback on key messages if they would like to contribute 	<p>FYI Contribute</p> <p>#1</p>

<p>7. Panel Discussion and Recommendations</p> <p>Skipped, as discussion from presenters was incorporated throughout the sessions</p>	<p>Contribute</p>
<p>8. Upcoming Panel Meetings & Events Wrap Up</p> <ul style="list-style-type: none"> ➤ Events and opportunities: please forward by email to susan.stinson@calgary.ca ➤ Upcoming conferences/events - Climate Symposium Dates are March 25th to 27th 2021 – It is a Virtual Event – more details to follow ➤ Our next potential Climate Panel Meetings are scheduled for: <ul style="list-style-type: none"> • March 5, 2021 • June 4, 2021 • September 10, 2021 • December 3, 2021 	<p>Closing</p>

Meeting Action Items

#	Description	Responsibility	Due Date	Status
1	Request from the Reporting Subcommittee that Panel members email any feedback on key messages if they would like to contribute (to Steph Gagnon)	Panel Members to Reporting Subcommittee		In Progress