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Title: Transitioning to highly sustainable office buildings – The role and experience of occupants and managers

Abstract: Buildings account for up to 40% of global energy use and 33% of global GHG emissions (UNEP, 2012). Office buildings make up a significant proportion of that. Leading green office buildings in North America such as the Centre for Interactive Research on Sustainability (CIRS) in Vancouver in BC, and evol1 in Ontario demonstrate that the technology exists to create net-positive energy and carbon-neutral buildings, and that they can be built within the budget of a private developer, providing the conditions for scalability. What is often neglected, however, is the human side of high-performance green buildings. The panel will discuss the role and experience of inhabitants, building upon the speakers' research and applied work. Questions raised will include: What role do the building citizens play in meeting the performance targets of green buildings? How can we create a culture of sustainability amongst building citizens? How can building performance feedback be leveraged to engage people in sustainable behaviours? How do expectations of green buildings relate to the actual experience of them? How do green buildings contribute to inhabitants' wellbeing, sense of community, and productivity? What motivates building owners and tenants to invest in green buildings? The first panelist is Clint Undseth, the Vice President Innovation for Stuart Olson, one of Canada's largest construction companies. Their focus on high performing buildings includes financial sustainability, occupant wellbeing & productivity, resource management and environmental responsibility. Mr. Undseth will discuss the role of strategic change management, including building performance feedback, as a core challenge in realizing building performance goals. Next is Dr. Sylvia Coleman, Postdoctoral Researcher with the interdisciplinary Sustainable Building Performance Assessment research group (SBEPa) at the University of Toronto. Dr. Coleman will explore the Expectations Gap and the development of wellbeing, productivity and engagement at CIRS. Third is Dr. Manuel Riemer, a professor of community psychology and sustainability science at Wilfrid Laurier University and the director of the Viessmann Centre for Engagement and Research in Sustainability. Dr. Riemer will draw from his research on the human aspects of high-performance green office buildings in partnership with the City of Edmonton, Alberta, and the evol1 building, Canada's first commercial net-positive energy multi-tenant office building. The session will be moderated by Laura Fedoruk, data scientist for Sunrun, the US's largest residential solar + energy storage company, working on providing distributed home, grid and utilities energy resources, to build cleaner and more resilient energy systems.