

CLIMATE SOLUTIONS PARK PROJECT

York University
Executive Summary

Updated May 2020 in response to Covid19 Pandemic

Overall Project Goal

The overall goal of the Climate Solutions Park Project (CSP) is to create an inspirational place for experiential learning, networking and innovation opportunities. Our approach is to harness the existing physical and online space into an experiential education park at York University's Keele Campus. Please note that approval has been obtained from the City of Toronto Planning Department for these educational activities at specific campus locations (please see Appendix 1 for a visual overview and location maps).

Specific Urgent Goals

Due to the current Covid19 pandemic we are proposing to re-focus our activities at the CSP to ensure the expedited development of pressing technologies and human resources needs. Our main concern now is to develop precision agriculture to ensure the availability of food at the local level. Precision agriculture is local, sustainability-focused and aims at high yields of healthy fruits, grains and vegetables to ensure food security. To make precision agriculture a priority we suggest that shipping containers, (acquired from our partner Giant Containers) are installed on the York Keele campus within the CSP location. These shipping containers will be fitted with living walls by our partner NEDLAW and will include UV disinfection systems designed for clean indoor air to safely house: a replicable model greenhouse with solar PV/battery back-up systems; safe accommodations for agricultural workers; clean training classrooms and secure tool workshops. The goal is to create a safe learning ecosystem for product research and human resource development focused on precision agriculture to satisfy local food needs.

Urgent Social Needs to Ensure Continued Local Access to Food

There is a time-sensitive and critical need for locally-trained precision agricultural workers, to rapidly fill the void left by the over 60,000 foreign seasonal agricultural workers who fly to Canada every year to plant and harvest local crops. Today, with borders closed and travel restrictions due to the pandemic, not all essential workers will be available to Canadian farmers. Mary Robinson, president of the Canadian Federation of Agriculture and a PEI potato farmer, speaking on CBC radio on March 26, 2020 about the effect of the pandemic on farmers, said: “imported agricultural labour is absolutely necessary for Canadian food security at this time.”

Although it was recently announced that the Temporary Foreign Worker Program will continue, it is important to note that 63 migrant workers who arrived in Kelowna BC from Mexico to work at a nursery tested positive for Covid19 (with some results still pending) and transmitted the virus to 12 others working on site. So, it is certainly not a foregone conclusion that this program will be working at capacity. At the very least there will be delays. Regardless of the migrant worker situation, Canada still only produces about 20% of its fruits and vegetables and imports the rest. If there are supply chain disruptions in any of the 100 + countries from which we import food, we could have some empty grocery store shelves, especially if Pandemic restrictions remain in place for months to come.



(continued)

This is where we come in. Our proposed Local Agricultural Workers Training (LAWT) Program at York U would include precision training, developed in collaboration with sector-specific farming experts, to thereby quickly form a trained work force that will meet the needs for local food supply. This training will include all basic skills to design, plant, maintain and harvest crops at the local level and practical knowledge of precision agriculture-related systems, such as solar photovoltaic systems and new electric farm vehicles such as tractors and ATVs, which we are developing with our partners Kinetic Solar, Silfab and Daymak.

We are also seeking access to larger tracts of lands in the Rouge Park in which we can replicate our converted shipping container models and scale-up operations. We aim at connecting our York U training facilities to agricultural lands in the Rouge Park using electric buses acquired from the Lion Electric Bus Company, which manufactures e-buses in Quebec. To do so, we are developing a secure mobility partnership with ParkBus, a versatile transportation company founded and headed by a York U graduate.

We also have an opportunity, which we are presently consolidating, to develop climate and health related collaborations with local Indigenous peoples and other diverse Canadian communities. Through our partnership with The Global Institute for Conscious Economics (GICE), we are exploring new economic and business solutions to support the mental and physical wellbeing of our current and future labour force, while also studying new business solutions that promote the green economy. GICE will allow us to engage global thought leaders, executives and entrepreneurs, youth and policy makers in our various initiatives with the goal of positioning Canada as a global leader in new economy infrastructure post COVID-19.

We are also proposing that the process of achieving all of the above be carefully documented through film and then be extensively posted and distributed. This online-oriented approach will enable a variety of concerned organizations, researchers, students and citizens to experience (first online and once is safe, in person) our cutting-edge research, art, inspirational displays and training opportunities.

All our training content will be carefully curated to showcase positive and hopeful responses to the planet's present public health and climate emergencies.

In short, we aim to offer an inclusive, accessible, and inspirational knowledge-mobilization model for all citizens, other universities, and cities of any size.





Context

Given York University's practical experience with food security, Indigenous environmental justice, large-scale energy efficiency programs, carbon-free labs, green buildings, public transportation solutions and community art, we are strategically positioned to become a national and international leader on climate change solutions. This includes, most critically, precision agricultural worker training. This focus will enable York U to apply for new grants recently set-up to address the pandemic, as well as funding from the Canadian Carbon Pricing System and federal and provincial ministries related to agriculture and health, which in turn will lead to valuable new opportunities for research, experiential learning and knowledge mobilization. Our aim is to transform York University into an inspiring living laboratory that will showcase much needed solutions and strategies that can be replicated throughout Ontario, Canada and internationally.

Proposed CSP Components:

Note: All of the below will be offered on-line initially and then in person when permitted by public health emergency regulations.

1. Permaculture raised garden beds and greenhouses (for hands-on training workshops and to grow organic food).
2. Farmers/Artisans' Market in converted shipping containers
3. Aquaponics units (fish & greens grown symbiotically for workshops and food).
4. Solar food tent powered by photovoltaic and systems to enable practical experiential learning workshops.
5. Solar electric tractor showcase.
6. Solar electric vehicle charging stations in existing FES/Osgoode parking lot & electric car/bike/ATV demonstrations @ Robotics pavilions.
7. Public art throughout the park (innovation and solutions as iconographic themes).
8. Natural Amphitheatre for art, music and educational events.
9. Floating dock (on Stong Pond) to showcase new transportation use for solar photovoltaic systems (i.e. electric boats).
10. Naturalized paths around pond for walking, e-cycling and accessible solar ATV rides.
11. Affordable homes in solar containers, including solar PV + living walls.
12. Safe solar launch area for canoe, solar electric boats, kayak lessons & boat rentals).
13. Replicas of Rouge Park and Bob Hunter Memorial Park to incentivize visits to those parks (via proposed electric bus services from Keele Campus).
14. FES/Osgoode parking law adaptation of Toronto's Stackt Market to showcase innovative, sustainable and affordable building solutions.
15. Showcase scale models of paradigm-shifting projects implemented throughout the world.
16. Save & Save Project: Staff and students would collect virtual passport stamps upon participating in the various activities in the CSP, redeemable for environmentally friendly gifts. See Appendix for details.
17. Aeroponics Unit (plants held in a position where they are able to get light and proper oxygen while a nutrient-rich mist is sprayed at the roots of the plants at specific points in time to ensure proper growth.) See Appendix for details.

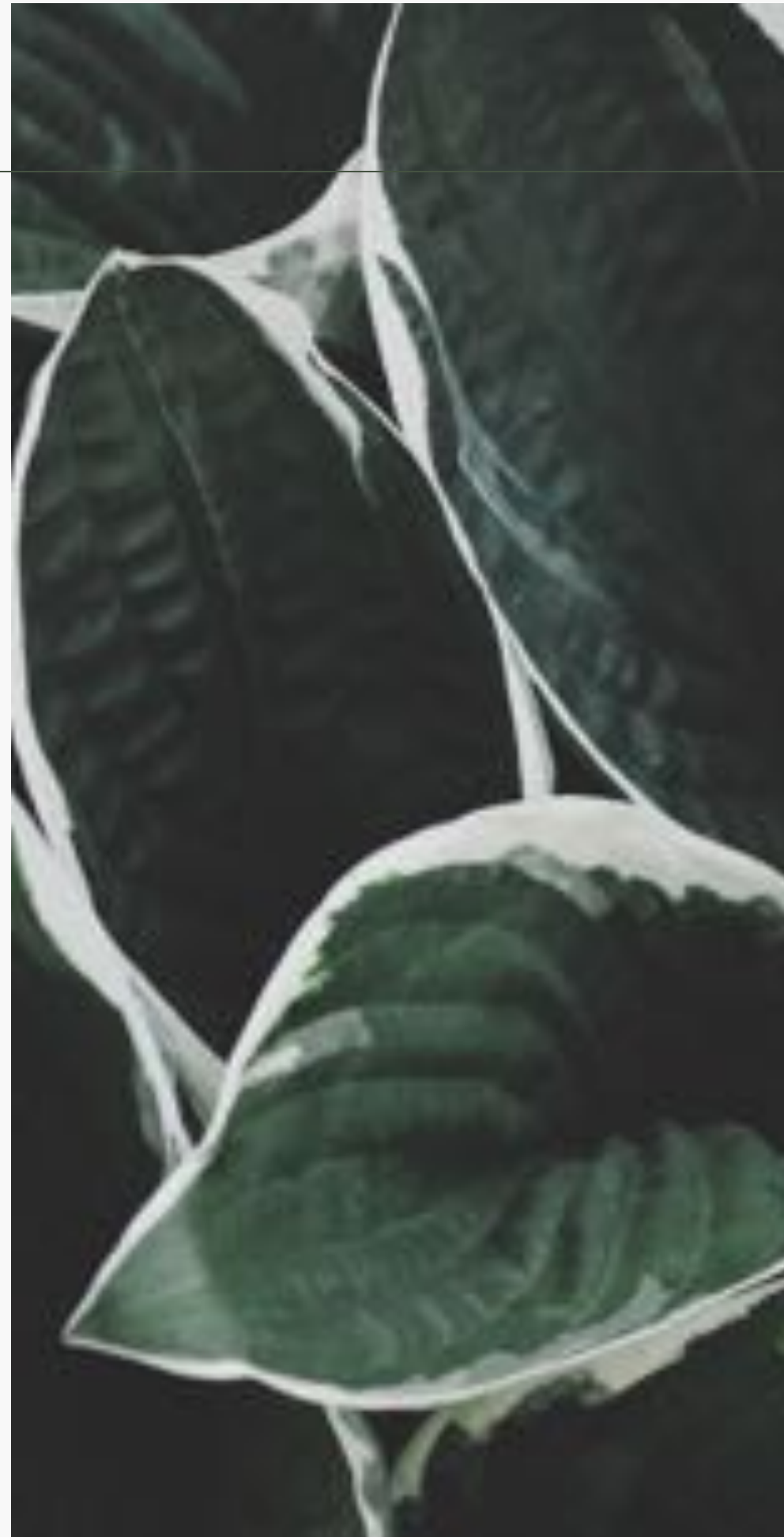
Key Personnel

- CSP Project Coordinator: Jose Etcheverry, PhD; Board of Governors and Senator, York University; Director International Renewable Energy Academy; Co-Chair Sustainable Energy Initiative; Associate Professor Faculty of Environmental Studies, York University.
- CSP Engagement Coordinator: Dale Colleen Hamilton, Masters Candidate, York U; former rural municipal councilor; former Community Development Manager, City of Toronto; Indigenous Environmental Justice Researcher.
- CSP Student Coordinator: Codrina Ibanescu, BES Candidate, Environmental Studies York U; Director Carbon Free Club, York University.
- CSP Partnerships Coordinator: Carol Singh, BES. Former Manager of Program Development, International Renewable Energy Academy.
- CSP Creative Directors: Sophie Brussaax, Founder and Artistic Director ArtsHelp; Mo Ghoneim, award-winning media professional and Senior Advisor, Arts Help.
- Rhiannon Rosalind and Jeffrey Overall, founding members, Economic Club of Canada
- Daniel Kroft, Founding member, Giant Containers Inc.
- Tony Neale, Head Farmer, Wheelbarrow Farms, Uxbridge, ON.



CSP Collaborators/ Supporters

(to date)

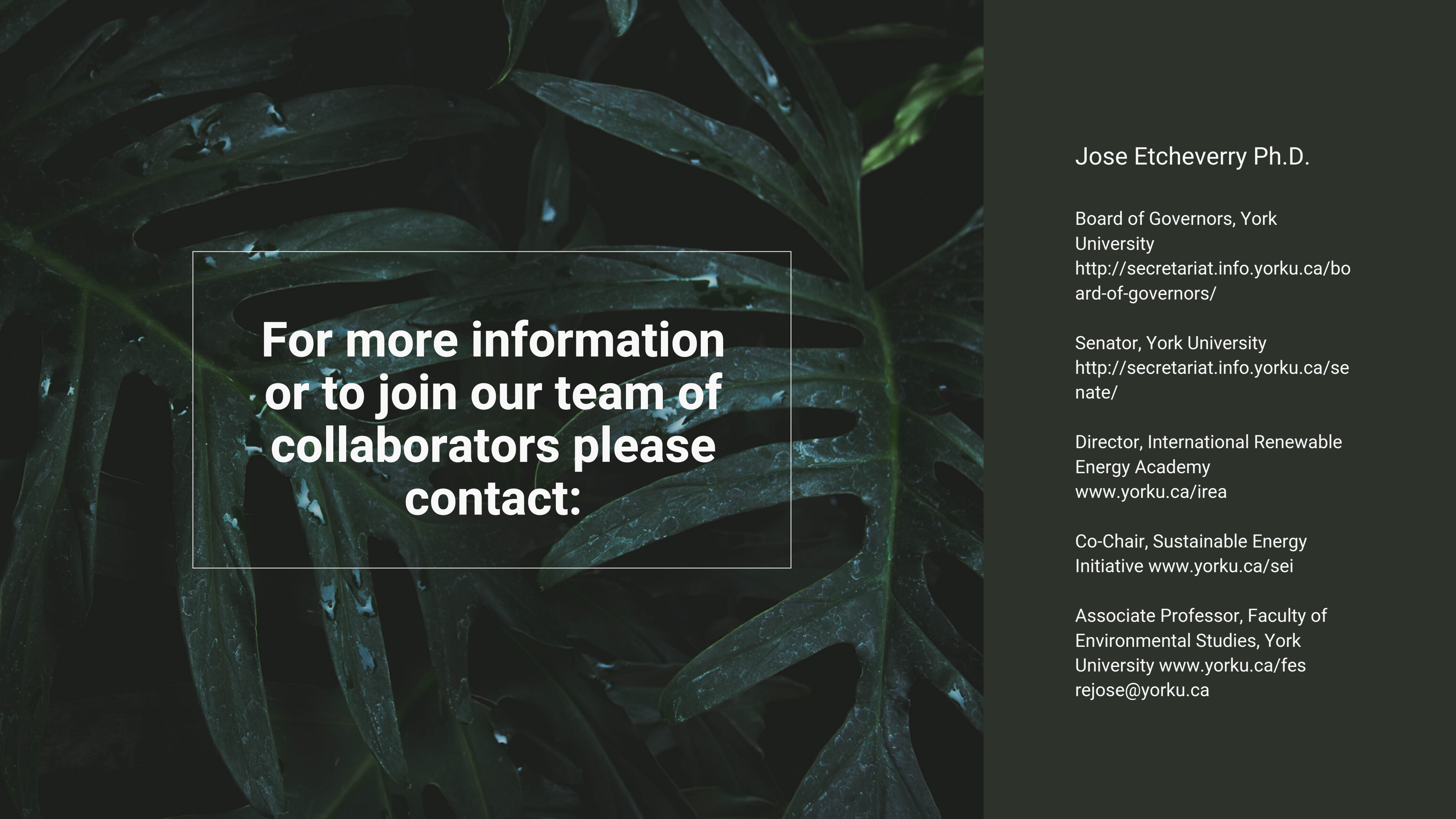


- York University Faculty Association Climate Emergency Committee
- ArtsHelp (the biggest arts platform in the world)
- UN Urban Economy Forum
- Danish Folkecenter for Renewable Energy
- Carbon-Free Student Club, York University
- Private Sector Firms (Wheelbarrow Farms, Daymak, Silfab, Kinetic Solar, FCL Fisker Customs & Logistics, 3D Impact Group, CPCS, Silfab, ParkBus, Lion Electric Bus Company, Options International)
- NGOs (David Suzuki Foundation, Regenesis, Windfall Ecology Centre, Danish-Canadian Chamber of Commerce, Danish Folkecenter for Renewable Energy; UN Earth Charter Secretariat, The Global Institute for Conscious Economics, the Economic Club of Canada)
- CSP Ambassadors (Patricia Fuller, Canada's Ambassador for Climate Change; Anders Fisker VP European Union Chambers of Commerce in Canada/Copenhagen Goodwill Ambassador)
- York Region Food Council (a policy and advocacy body, connected to key food industry/policy leaders across York Region).
- Global Institute for Conscious Economics
- Economic Club of Canada
- Giant Containers Inc.

Path Forward

We invite you to join us in the development of new ways to grow the Climate Solutions Park (CSP) and offer the last pages of this document as visual moorings. The Climate Solutions Park (CSP) is supported by hundreds of York University Professors who have signed their names to a letter drafted by the York University Faculty Association. York U student associations (such as the Carbon Free Club and Regeneration) and great private sector firms also support the development of the CSP.

To date, we have trained many students on how to use our tool engineering facilities to build solar structures to, for example, power shared electric mobility vehicles. During minus 13 Celsius weather, we began building the first of many solar charging stations before we had to stop our work to help slow down the pandemic. Nevertheless, we will remain active online developing a co-op structure to ensure the creation of new sustainable local jobs at the CSP so essential service technologies can be manufactured right here in Ontario. We will persevere with our commitments and will continue developing new ways to maintain our momentum and expand our partnerships. The world needs Climate Solutions Parks and our contribution is to make our own a practical reality right here at York University.



**For more information
or to join our team of
collaborators please
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