

2022 Regional Youth Summit

Generate Youth Energy & Climate Summit

April 13 & May 11, 2022 | Calgary
April 27, 2022 | Edmonton

Inside Education's pilot program connecting Alberta junior and high school students to real world, practical examples of clean fuels, energy efficiency, sustainability and the energy transition.



Introduction



YOUTH ENERGY & CLIMATE LEADERSHIP SUMMIT
BY INSIDE EDUCATION

Regional Generate 2022 was a pilot program growing out of the enormously popular, award-winning Generate Youth Energy and Climate Leadership Summit. Regional Generate 2022 consisted of two day-long youth summits, held in Calgary and Edmonton on April 13 and April 27, respectively. Inside Education also hosted a special extension of Regional Generate - a private student session with Dr. Roberta Bondar on May 11 in Calgary.

Each Regional Generate summit was a day of experiential learning, speakers, tours and hands-on workshops, all with the goal of educating youth about Alberta's energy landscape. The summits branched throughout their respective cities, examining what is being done to increase energy efficiency and address climate change across the energy sector. The program also provided tools and resources to empower students and teachers to get involved and take action at their schools and in their communities.

The 2022 Regional Generate program was open to teams of junior and senior high school students from grades 7 - 12 across the greater Edmonton and Calgary areas. This year, Regional Generate was fully subscribed with **80** students at the Calgary summit from 3 different schools and **52** students at the Edmonton summit from 5 different schools. The Dr. Bondar session had **51** students from 1 school. **In total, 183 students participated in Regional Generate 2022.**

PROGRAM GOALS

SHOWCASE local energy initiatives and research

INSPIRE and provide opportunities for energy efficiency initiatives for schools, communities, and homes

FACILITATE a broader understanding of the connection between energy, sustainability, and climate change



2022 Regional Generate - Calgary

PROGRAM AT A GLANCE

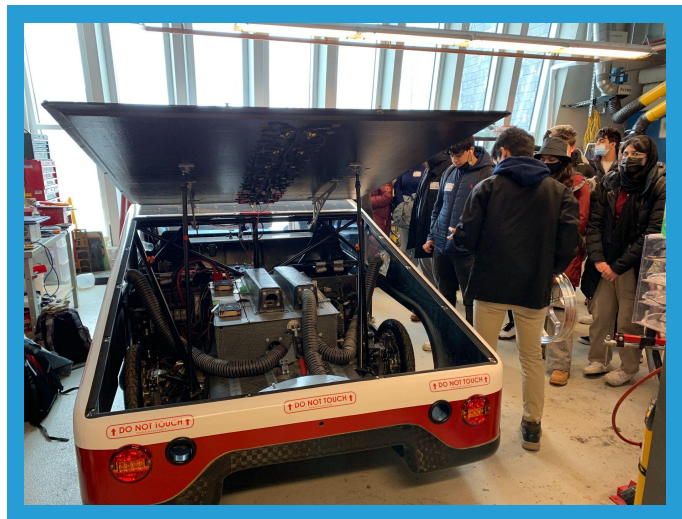
April 13th, 2022

| |
|-----------------------------------------------------------------------------------------------------------------------------------|
| April 13th |
| Program Welcome and Introduction |
| Alberta's Energy Transition Panel |
| Tours - Energy Innovations in Action SkyFire Energy, SAIT Green Building Technologies, U of C Solar Car + Re-Electric Car Team |
| Lunch |
| Energy Expo |
| Wrap Up & Take Action |
| Program End |

80 students from **5 schools** participated in Calgary Regional Generate. Students started the day by hearing from 3 industry leaders who spoke about Calgary's economic investment in green energy development, geothermal energy as an up and coming renewable energy resource, and carbon capture solutions. The students then took part in tours of energy innovations in action. One group went to the U of C to meet their Solar & Re-Electric Car Teams, another visited SAIT's Green Building Technologies building, and one class went to SkyFire Energy to learn all about solar panels. The day wrapped up with a Take Action panel, featuring a former Generate participant and current Executive Director of Youth Climate Lab, Jasveen Bar. Two youth from the Alberta Youth Leaders For Environmental Education also spoke about their experiences as young leaders and environmentalists.



SkyFire Energy



University of Calgary Solar & Re-Electric Car Teams

May 11th, 2022

As an extension of Regional Generate, Inside Education was given the opportunity to bring a group of **52 students** to the ISA (Instrumentation, Systems & Automation) Conference in Calgary for a private session with Dr. Roberta Bondar. Dr. Roberta Bondar was first Canadian woman and first neurologist in space, and is currently an active photographer and environmental advocate.



Dr. Roberta Bondar

2022 Regional Generate - Edmonton

PROGRAM AT A GLANCE

| |
|---------------------------------------------------------------------------------------------------------------------------------------------|
| April 27th |
| Welcome & Introduction to Alberta's Energy Transition |
| Tours - Energy Innovations in Action NAIT Renewable & Alternative Energy Lab Tour Careers in Energy Virtual Reality Experience |
| Canadian Hydrogen Convention Hydrogen 101 Panel Tour of Exhibition Hall |
| Wrap Up & Take Action |
| Program End |

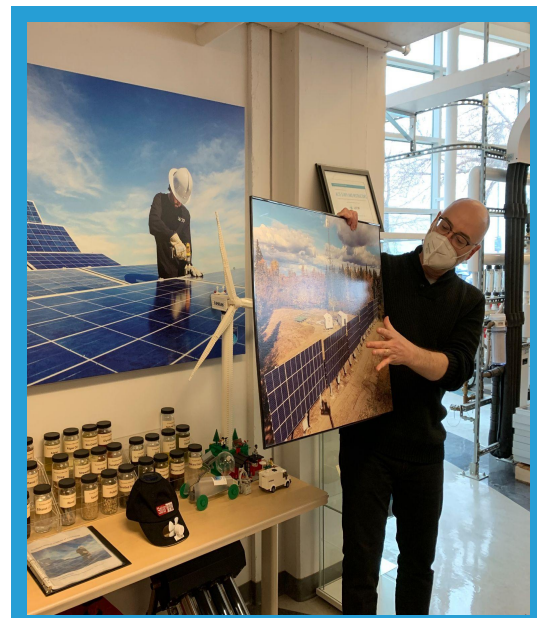
April 27th, 2022

Edmonton's Regional Generate afforded **52 students** from 5 **schools** the chance to investigate an energy transition by deep diving into renewable energy and alternative fuels for the future.

The program began at NAIT where they toured the Renewable & Alternative Energy Lab and used PetroLMI's Virtual Reality headsets to learn more about careers in the energy sector. These experiences were valuable because they gave the students a look at the variety of resources used for energy across Alberta - including oil, gas, wind, solar and biomass. Most of the day was spent at the Canadian Hydrogen Convention. The Canadian Hydrogen Convention was the first of its kind, and we were very fortunate have the opportunity to attend. First, the students heard from panelists that spanned the emerging hydrogen sector. Then, the students toured the exhibition hall, hearing first hand about the many applications of hydrogen - including air travel, road transport, heating and electricity. The day ended with a presentation from EcoSchools Canada and a workshop designed to encourage students to take what they learned back to their schools and communities and kickstart an action project.



Canadian Hydrogen Convention



NAIT's Renewable & Alternative Energy Lab

"Amazing! Loved being part of the first hydrogen convention in Alberta! Incredible experience hearing from experts, seeing first hand hydrogen energy at work."

- **Katharine Mah, Teacher, Academy at King Edward**

Participating Schools

Calgary Regional Generate:

Annie Gale School | Calgary Board of Education
Sir John A Macdonald School | Calgary Board of Education
Nelson Mandela High School | Calgary Board of Education
Louis Riel School | Calgary Board of Education

Edmonton Regional Generate:

Riverview Middle School | Black Gold School Division
Ross Sheppard High School | Edmonton Public School Board
Academy at King Edward, Victoria School | Independent School
Memorial Composite High School | Parkland School Division
Dr. Margaret Ann-Armour School | Edmonton Public School Board

“It was an excellent experience for my grade 9’s. Not only did it touch on a number of topics in the curriculum but it also opened up the eyes of a number of students.”

- Ron Swan, Teacher, Riverview Middle School

Attracting twice as many applications as we could accept, the selection process was tricky. A combination of small teams and full classes were accepted to the program, with grade levels ranging from 8-12.

Students and teachers came in teams from Calgary, Edmonton, Stony Plain and Devon. We hosted a diverse group of students from five different school boards. Each of the schools attending brought unique perspectives.

The invited schools’ applications included a variety of levels of energy efficiency literacy. While some teams were already involved in clubs or school projects that fit within the scope of the summit’s themes, consideration was also given to teachers who demonstrated ideas or desires to increase the capacity of their schools.

Common among applications was a desire to help foster citizenship and local community engagement.



Partners, Expert Guests, and Tour Hosts

We extend deep thanks to our program partners for their support of 2022 Regional Generate. Teachers and students alike voiced their appreciation for making the program such an accessible opportunity.

We'd also like to thank the following guest speakers and tour hosts, for providing the backbone of the Regional Generate experience!

Calgary Regional Generate:

- Chris Brown | Calgary Economic Development
- Neil Ethier | Eavor Geothermal
- Jaeson Cardiff | Clean 02
- Bonnie Praymayer | SAIT Green Building Technologies
- Vilasini Pillay | SkyFire Energy
- Alison Barrett | University of Calgary
- Anna Kottsova & Lisette Cameron | PetroLMI
- Jasveen Brar | Youth Climate Lab
- Sasha Adamova & Jack Levy | Alberta Youth Leaders for Environmental Education
- Dr. Roberta Bondar



A SPECIAL THANKS TO OUR FANTASTIC EXPERT SPEAKERS AND TOUR HOSTS, THEIR COMMITMENT TO ADVANCING EDUCATION IS GREATLY APPRECIATED.

Edmonton Regional Generate:

- Cheryl Tollefson & Anna Kottsova | PetroLMI
- Dr. Jim Sandercock | NAIT Alternative Energy Program
- David Ghoris & Camille Jewitt | DMG Events
- Mark Lea-Wilson | Hydrogen Hub
- Aaron Engen & Sydney Hanson | BMO Capital Markets
- Matthew Klippenstein | Canadian Hydrogen & Fuel Cell Association
- Hilary Faulkner | Alberta Energy
- Taleesha Thorogood | H2Go
- Dr. Melanie Hoffman | Alberta Council for Environmental Education

“Generate has been an engaging, enriching, and empowering cross curricular experience for our Design Thinkers. Completely relevant to the everyday engineering design process that we study and go about so closely. Getting the chance to speak to industry leaders directly is incredible and relevant as students begin to consider future careers. Thanks to Inside Education and their generous partners for making this opportunity happen for our curious youth.”

- Cataline Fric, Teacher, Dr. Margaret-Ann Armour School

A special thanks to our Program Partners for making this no-cost program possible:



Program Impact

Regional Generate Post-Survey



Inside Education is proud of the many successes of Regional Generate 2022. Teachers and students were given the opportunity to evaluate their experience at Regional Generate through an online survey. All respondents shared very positive and encouraging reflections about the tours, speakers, sessions and overall value of the day. We are pleased to share some of the survey results below.

- Student surveys indicated that **85%** of students feel like they know more about issues related to energy and climate topics in Alberta.
- Student surveys indicated that **88%** of students feel excited about what they learned about energy and climate in Alberta.
- **100%** of teachers said their students learned new content about energy and climate in Alberta!

The impact of Regional Generate was evident by some of the quotes shared by teachers and students in the survey:

STUDENT QUOTES

“Thank you for letting us experience Regional Generate. It was very fun and I learned a lot!”

“Regional Generate was a really good learning experience that helped me become aware of the different career choices I have to choose from relating to the environment.”

“Regional Generate was great and it made me excited for the future!”

“Regional Generate allowed me to learn about the future and be part of the action!”

TEACHER QUOTES

A great experience to help deepen students’ understanding of alternative energy sources”
-Tin Nguyen, Teacher, Annie Gale School

“It was amazing and so valuable for students to connect energy learning with current things happening in Alberta.”
-Nancy Else, Teacher, Sir John A Macdonald School

“Students loved the experience. It was engaging, memorable and informative.”
-Katharine Mah, Teacher, Academy at King Edward

Summary and Futures

Regional Generate 2022 was a great success! Between the three events, a total of **183 students and 20 teachers from 9 schools participated**. The lasting impact of Regional Generate was evident - the participants shared that the experience inspired them to continue learning about climate and energy, and gave them ideas for how to get involved through action projects, careers and volunteer work.

Regional Generate 2022 was unique because it was a one-day summit that invited both full classes and small teams to apply. This format proved successful because it allowed teachers to use their discretion regarding how many of their students would benefit from the experience. Inside Education looks forward to continuing this format of youth summit and plans to host 8 Regional Generate summits in the 2022/2023 school year in more locations across Alberta (Fort McMurray, Cold Lake, Dawson Creek, Grande Prairie, Fort Saskatchewan, Rocky Mountain House, Medicine Hat and Calgary). Additionally, Inside Education plans to host a multi-day province-wide energy education summit for Senior High students in March 2023.

We are thrilled with the interest, commitment, and enthusiasm from participants, partners, expert speakers and tour hosts. Regional Generate continues to be an excellent interface for students and teachers to learn about current technology and innovations directly from experts and stakeholders.

Contact

For More Information Contact:

Inside Education Society of Alberta

www.InsideEducation.ca

Mila Mezei, *Education Program Coordinator* | mmezei@insideeducation.ca

Steve McIsaac, *Executive Director* | smcisaac@insideeducation.ca

