

Energy Futures Summer Teacher's Institute

July 4-8, 2023

Edmonton - Lac La Biche - Smoky Lake - Fort Saskatchewan - Fort McMurray

A five-day immersive exploration of energy development and an in-depth look into the future of energy innovations and technologies and ideas to integrate energy education into classrooms across Canada.



Canadian Teachers at Shell Quest
Carbon Capture and Storage Facility

This program saw teacher participation from and toured through regions inhabited by the First Peoples of Treaty 1, 2, 6, 7, and 8; Métis people; Peoples of the Tlicho Agreement, Williams Treaties, and the Peace and Friendship Treaties since time immemorial. In the spirit of reconciliation and reciprocity, Inside Education respectfully acknowledges all Indigenous Peoples, whose deep respect for the environment forms the foundation of our personal responsibility for the stewardship of our environment and natural resources, a connection we strive to foster through all our programs.

Introduction

Inside Education is proud to report on the 30th year of Teacher Professional Development with the **2023 National Energy Futures Summer Teacher Institute**.

The National Energy Futures Institute was a 5-day immersive educational experience for teachers and educators at all grade levels and from across the country. The program was designed to give participants an overview of energy development, innovations and technologies, and consider Alberta's role in energy transition and diversification. Participants had the opportunity to meet with experts in industry, government, Indigenous peoples and the not-for-profit sectors while getting an up-close look at natural resource extraction, reclamation, and emission reduction technologies through hands-on tours.

The program culminated in a education workshop where teachers explored how the information they gained about energy development and transition can be applied in the classroom. This was an opportunity for teachers to share ideas, discuss curriculum and lesson plans, and discover new energy-related learning materials and resources for their classrooms.

We would also like to acknowledge the commitment and dedication of teachers, coming from all parts of the country, to this program during their first week of summer break. It is anticipated that over 4000 students across Canada will ultimately benefit from this PD program and their teacher's commitment.



The Program

Through this dynamic program, 25 educators from 8 provinces:

- **CONNECTED** with the people, places, and perspectives that give insight into Alberta's role in Canada's energy landscape.
- **DISCOVERED** how energy development operations work through tours of field sites and immersive learning opportunities.
- **PARTICIPATED** in a unique professional development opportunity that modeled a hands-on, experiential and inquiry-based approach to learning.
- **CONSIDERED** issues and innovations through discussions with energy sector experts representing multiple perspectives.
- **CREATED** lasting networks with like-minded educators from across Canada.
- **ENHANCED** their lessons with current, accurate and meaningful energy specific content that will engage students of all ages.

PROGRAM TOPICS & THEMES

- Net-Zero Energy Production & the Energy Transition
- Clean Fuel Technologies & Innovations
- Greenhouse Gas Emissions Reductions & Climate Change
- Future Careers & Youth Engagement

PROGRAM AT A GLANCE

Tuesday, July 4

Introductions & Energy 101

Future Energy Systems Lab Tour - *University of Alberta*

Wednesday, July 5

SAGD Site Tour - *Christina Lake, Cenovus Energy*

Hands-On Energy Classroom Activities

Oil Sands Discovery Centre - *Fort McMurray*

Thursday, July 6

Oil Sands Mining Site Tour - *Horizon Mine, CNRL*

Métis Crossing Cultural Heritage Gathering Centre
(Solar Farm Project, Cultural Interpretive Tour,
Buffalo Paddock)

Friday, July 7

Carbon Capture & Storage Site Tour - *Shell Quest*

Pipeline Control & Operations Centre Tour
- *Pembina Pipelines*

Renewable Energy and Sustainable Urban Design -
Blatchford Community, City of Edmonton

Energy & Climate Education Celebration Dinner featuring
Blindman Brewing

Saturday, July 8

Future-Ready Youth & Indigenous Climate Lessons

Careers in Energy

Classroom Connections Workshop

Program Wrap-Up

The Participants

Inside Education received many high-quality applications from across Canada for the 2023 Energy Futures Program. There were 25 educators selected based on their high levels of engagement and excitement to enhance energy education into their classroom. This group represented educators who work with students from kindergarten through to post-secondary, and we were especially pleased to have teachers join us from seven provinces and one territory—including many rural and Indigenous communities—across Canada.

One of the main goals of teacher PD programs is to provide a networking opportunity for teachers who share the goal of incorporating energy content into their teaching. Based on post-program surveys filled out by participants, this goal was met as **100%** of respondents strongly agreed that the PD was both a great networking and high-value professional learning opportunity. It is our hope that the relationships formed during this nation-wide tour will provide a support network for teachers pursuing natural resource and environmental education in the future.

“I have been given the tools, now it is up to me to give neutral, informed opportunities for students in the future. I loved being able to go ‘behind the scenes’ and that does not happen in most professional learning opportunities.”

- Jonathan Filewich | Souris, MB

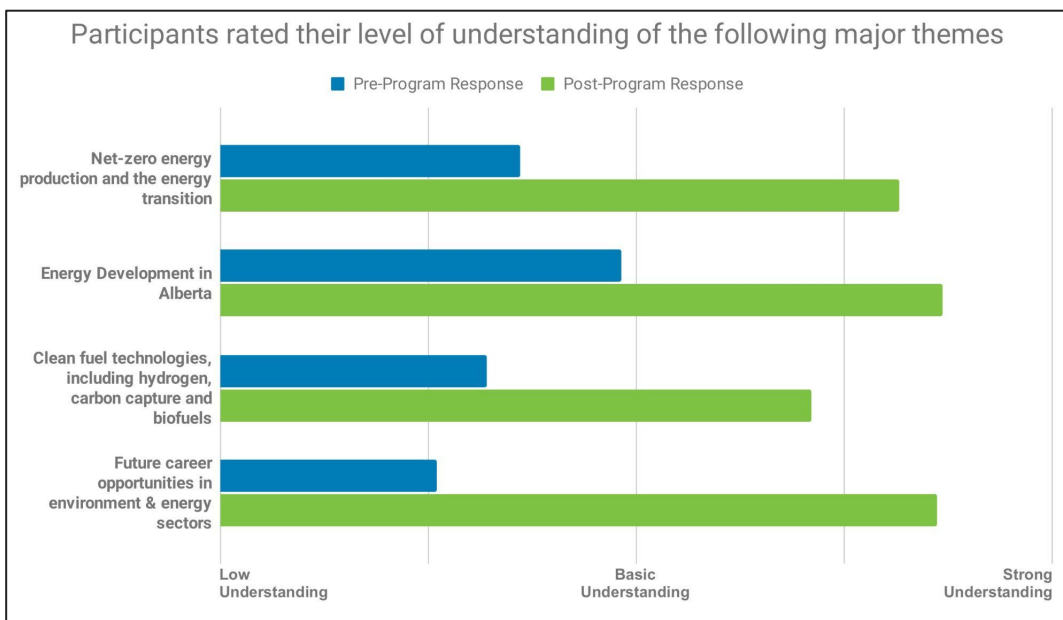


- Karri Berg** | Riverside School, Calgary, AB
- Allehea Bowen** | University of Calgary B.Ed. Student, Calgary, AB
- Jenn Burggraaff** | Chief Jimmy Bruneau School, Behchokò, NWT
- Christi Cottrell** | B.Ed. New Graduate, Edmonton, AB
- Erin Dawe** | Mary Queen of Peace, St. John's, NL
- Jonathan Filewich** | Souris School, Souris, MB
- Zack Furlong** | Labrador Straits Academy, L'Anse-au-Loup, NL
- Winona Lafreniere** | Indian Resource Council, Calgary, AB
- Wanda Landshoff** | Edmonton Islamic Academy, Edmonton, AB
- Kara Lengyel** | Cumberland College, Melfort, SK
- Louise Leslie** | GeoLearns, Two Islands, NS
- Roger Moore** | Faculty of Education - University of Alberta
- Ryan Neville** | MacTier Public School, MacTier, ON
- Robin Owens** | STEM Innovation Academy, Calgary, AB
- Rachelia Pawluk** | M.E. LaZerte, Edmonton, AB
- Carolyn Penner** | Vanier Catholic Community School, Edson, AB
- Cody Schiltroth** | High Park School, Stony Plain, AB
- Sam Sirianni** | Rundle Academy, Calgary, AB
- Michael Spurrell** | Clarenville High School, Clarenville, NL
- Carole Ware** | Riverside School, Calgary, AB
- Laura Webb** | Holy Redeemer Catholic High School, Edson, AB
- Jeanine Went** | Chief Jimmy Bruneau School, Behchokò, NWT
- Makayla Widmer** | Northcott Prairie School, Airdrie, AB
- Laura Wilson** | Queensbury Elementary, North Vancouver, BC
- Vanessa Zacharias** | W.C. Miller Collegiate, Altona, MB

Program Impact and Feedback

Inside Education is proud to report that feedback for the 2023 National Energy Futures Summer Institute was overwhelmingly positive and will result in a meaningful impact in the classrooms and schools of participating educators.

100% of polled participants indicated that they would recommend Inside Education programs to a colleague, and it's estimated that the learning of **>4000 students** will be impacted by this PD.



Survey results indicated that participants increased their overall understanding by an average of **70%** in all of the topic areas that were the major themes of this program.

“I thought I had a good understanding of the energy innovations, but I realized that there was so much more to learn. I was impressed by the efforts the energy sector is making in transforming their operations with realistic timelines and reaching their goals.”

- Louise Leslie | Two Islands, NS



“Thank you for all the work you put into this trip. The tours we took and experience we had are one in a lifetime. It was wonderful.”
- Carolyn Penner | Edson, AB



“The chance to network with teachers from across Canada was an added bonus to the incredible learning opportunities created in this PD. The ability for Inside Education to get us into behind the scenes places like refineries, mines and camps was something I could never access in other PD or regular life.”
- Vanessa Zacharias | Altona, MB



“I am ENERGIZED! Now that I know more information I just have so many ideas. Spending a week with like minded teachers is nothing short of exceptional and cannot be overlooked. The program and networking is absolutely invaluable!”
- Sam Sirianni | Calgary, AB

“ Ah-Ha Moments ”



“This was truly an amazing experience. I learned so much about energy (although there is always so much more to learn) and feel excited about bringing my knowledge to my students. In addition, it was a really well organized trip!”
- Laura Wilson | North Vancouver, BC

“Thank you so much for this incredible PD. Métis Crossing and their blend of culture with science was inspiring. I will wholeheartedly recommend this PD opportunity to all my teacher friends and family.” **- Kara Lengyel | Melfort, SK**

Partners, Expert Guests, and Tour Hosts

Inside Education would like to extend our thanks to the program partners for their generous support of the 2023 National Energy Futures Program. Financial accessibility is a goal for all of Inside Education's programming, and it is through the ongoing commitment to natural resource education that full scholarships are able to be offered to teachers from across Canada to attend these professional development opportunities.

"Inside Education has done a phenomenal job in bringing educators from across the country together. Their knowledge, experience, and enthusiasm was amazing for seasoned and new teachers, and I can only provide words of encouragement for this (and similar) programs to continue!"
- Erin Dawe | St. John's, NL



A SPECIAL THANKS TO THE FANTASTIC EXPERT SPEAKERS AND TOUR HOSTS, THEIR COMMITMENT TO ADVANCING ENVIRONMENTAL AND NATURAL RESOURCE EDUCATION IS GREATLY APPRECIATED.

- Marc Colombina | *Terrapin*
- Shafak Sajid | *Pathways Alliance*
- Will Noel | *Pembina Institute*
- Chris Derksen | *Environment & Climate Change Canada*
- Jason Toner | *Alberta Energy and Minerals*
- Dr. Valerie Miller | *University of Alberta Future Energy Systems*
- Carmen Lee-Essington | *Cenovus Energy*
- Scott MacDonald | *Cenovus Energy*
- Andy Cepuch | *Cenovus Energy*
- Joy Romero | *Canadian Natural Resources Ltd.*
- Ainslie Campbell | *Canadian Natural Resources Ltd.*
- Diane Minault | *Métis Crossing*
- Stephen Velthuizen | *Shell Quest*
- Rachele Clewes | *Pembina Pipelines*
- Heather Wheeliker | *City of Edmonton*
- Tom Lumsden | *City of Edmonton, Blatchford Community*
- Cimir Bains | *City of Edmonton, Blatchford Community*
- Kirk Zembal | *Blindman Brewing*
- Winona Lafreniere | *Indian Resources Council*



Summary and Futures

At Inside Education, we are pleased with the outcomes of the National Energy Futures Summer Teacher's Institute and the engagement of 25 highly dedicated teachers from across Canada. Positive feedback from participants, both during the tour and via the post-program survey, indicated that this was a high-quality and meaningful opportunity for teachers to enrich energy and climate education across Canada.

We recognize the importance of authentic hands-on energy education for students and teachers in a rapidly changing energy landscape. In the 2023-2024 school year, we look forward to the return of Energy Innovation Days across the province, the A+ for Energy Grant Program, along with energy-related classroom programs and new energy transition education resources for teachers and students. With the importance of energy education ever-present in our rapidly-changing energy landscape, we remain committed to providing high-quality, hands-on teacher professional development opportunities for educators across our province and nation.

Contact

For More Information Contact:

Inside Education Society of Alberta
www.insideeducation.ca

Kathryn Wagner, Program Director | kwagner@insideeducation.ca

Steve McIsaac, Executive Director | smcisaac@insideeducation.ca

