

#### The 2019/2020 A+ for Energy Teacher Professional Development Program

# **Energy & Climate - A+ for Energy**

#### August 25-27, 2019 | Calgary

A hands-on learning opportunity to support teachers in making the most of their A+ for Energy grant and enhance energy education in their classrooms!





## Introduction

A+ for Energy is an energy education program that awards grants of up to \$5000 to Alberta teachers to enable them to teach about energy, climate and related topics in their classroom. Students learn how to become responsible consumers of energy, effective community leaders, and active stewards of the environment and natural resources.

Since the A+ for Energy program started in 2007, founding partner BP Canada has provided close to 4.5 million dollars to schools in Alberta. Inside Education was honoured to take over the leadership of the A+ Program from BP Canada in 2018 and continue to empower students, schools, and entire communities to make informed decisions in support of a sustainable energy future. For the 2019/2020 school year we were thrilled to welcome TC Energy as a partner joining the A+ legacy.

This year over 45 innovative project proposals were submitted and 21 outstanding projects were selected as winners. The teachers from these winning schools were invited to join Inside Education in Calgary for three inspiring days aimed to provide support for their projects and energize their teaching.

We are excited to share the outcomes and impacts from this unique granting program and teacher professional development experience through this summary report. The overwhelmingly positive feedback from teacher participants indicates a strong desire for future energy education initiatives in Alberta.





### **The Professional Development Program**

Through this dynamic program, **41** educators:

- **EXPLORED** the topics of renewable energy and climate change through tours of sustainable buildings, food producers, and a state-of-the art power plant.
- CONNECTED with people and perspectives that give insight into Alberta's energy sector.
- ENHANCED their lessons with current, accurate and meaningful climate and energy content that will engage future generations of environmental stewards.
- REFLECTED on issues and innovations through discussions with energy experts representing multiple perspectives and industries.
- CREATED lasting networks with like-minded educators from across the province.



#### Sunday, August 25

Introduction & getting to know each other

Keynote speaker James Auld from CN. Project CanaPux: a Story of Innovation & Problem Solving

Energy Fun Fair: Teachers try out electricity generating bikes, VR goggles, solar cars and more!

Brookfield Residential Passive Haus Tour

#### Monday, August 26

Energy Education Session with PEEL, CPAWS, Relay Education, and Alberta Tomorrow

ENMAX Shepard Energy Centre Tour

Brant Colony Lunch and Net-Zero Egg Barn Tour

A+ for Energy Celebration Dinner at Heritage Park

#### Tuesday, August 27

Energy, Climate, and Sustainability Panel discussion with BP Canada, TC Energy, and Alberta Innovates

A+ Project Planning Session & Past Project Highlights

Final info & goodbyes!





### **The Participants**

Inside Education was pleased to invite 41 engaged educators to take part in this exciting Professional Development Program. Thirty of these educators were representing 2019/2020 A+ for Energy winning schools who will successfully receive a grant of up to \$5000 towards an energy project this school year. The other 11 educators applied for this program out of personal interest and expressed a strong desire to apply for the A+ for Energy grant in the future.

These dedicated educators gave up their last few days of precious summer break for professional development. Ultimately it will be the thousands of students these teachers impact every year who will benefit from this commitment. We proudly recognize these exemplary teachers and cannot wait to learn about the exciting means through which their experiences impact the lives and learning of their students.

Amanda Green | Ecole Champs Vallee, Beaumont Bailey Almberg & Jamie Roworth | Altario School, Altario Julie Arsenault | Michael Strembitsky, Edmonton Ryan Mann | Connections for Learning Y(our) Program, Stony Plain Janice Jensen & Brittany Desveaux | Tilley School, Tilley Dallas L'Hirondelle | Hillview School, High Prairie John Taylor & Travis Epp | Matthew Halton High School, Pincher Creek Zac Coupland | St. Joseph School, Coaldale Monika Wenzel-Curtis | Rosemont School, Calgary David Stephens & Shelly Sutcliffe | St. Theresa Catholic School, Sherwood Park Florin Panaitescu & Wanda Mahon | Cappy Smart Elementary, Calgary Jennifer Dusyk Johnson & Barbara Hollis | Cold Lake High School, Cold Lake Ian Doktor | Jasper Place High School, Edmonton Debra Seaman & Carl Landra | Capitol Hill School, Calgary Roxy Zahara, Cody Riley, & Robert Tymofichuk | New Myrnam School, Myrnam



Added bonus of touring a net-zero egg barn!

Samantha Willier | Webster Niblock Elementary School, Medicine Hat Steven Schultz & Beth Townsend | Lacombe Composite High School, Lacombe Brayden Ursaki | St. Mary's Elementary, Lloydminster **Hayley Twist** | Edison School, Okotoks James Stuart | Queen Elizabeth, Edmonton Kelsie London | Eugene Coste, Calgary Roopa Patel | James Fowler High School, Calgary Shala Vollman Taki | St. Martha School, Calgary **Shelley Dyrland** | West Country Outreach, Rimbey **Tiffany Sweeney** | St. William School, Calgary Will Sherstabetoff | Griffith Woods School, Calgary Kara Snoble | St. John Paul II High School, Grande Prairie **Rachel Swendseid** | Inside Education, Calgary **Darci Evans** | Capitol Hill School, Calgary Jeanna Day | Hawkwood School, Calgary Mike MacDonald | Notre Dame School, Calgary



## The A+ for Energy Projects

Presenting the 21 winning projects for the 2019 A+ for Energy Program! Inside Education is excited to work with these schools throughout the 2019-2020 school to help ensure the success of each of these creative energy education initiatives.





Altario School, Altario BARN RENEWABLE ENERGY | \$5000

Capitol Hill School, Calgary THE STORY OF WATER: A TALE OF CONSERVATION | \$5000

Cappy Smart Elementary, Calgary ENERGY PERSPECTIVES | \$5000

Cold Lake High School, Cold Lake HAND DRYERS - WILL BLOW YOU AWAY! | \$4500

Connections for Learning Y(our) Program, Stony Plain ENERGY PATH | \$3850

École Lacombe Composite, Lacombe ROOF 4 KIDS | \$5000

École Champs Vallée School, Edmonton & Michael Strembitsky School, Beaumont BRINGING THE "GREEN" INTO GREENHOUSE GAS EMISSIONS | \$5000

Glenmeadows School, Calgary ENERGY EDUCATION THROUGH THE ARTS | \$5000

Hawkwood School, Calgary ACTIVE TRANSPORTATION COME RAIN OR COME SHINE | \$4627 Hillview School, High Prairie THE COMMUNITY GREENHOUSE | \$5000

Jasper Place High School, Edmonton SPACE FOR ENERGY | \$4725

Matthew Halton High School, Pincher Creek ENERGY EFFICIENCY PROJECT | \$2025

New Myrnam School, Myrnam MINIMIZING CARBON FOOTPRINT THROUGH COMMUNITY COLLABORATION | \$5000

Notre Dame High School, Calgary DESIGN THINKING FOR INNOVATION | \$5000

Rosemont School , Calgary FUEL FOR FUEL | \$3000

St. Joseph School, Coaldate FABRICATE WITH SOLAR! | \$5000

St. Mary's Elementary, Lloydminster A THREE-PRONGED APPROACH TO LEGO ROBOTS... | \$4665

St. Theresa Catholic Middle School, Sherwood Park CONSERVATION IS NEVER OUT OF STYLE | \$5000

St. Theresa Catholic Middle School, Sherwood Park REACH FOR THE STAR! | \$5000

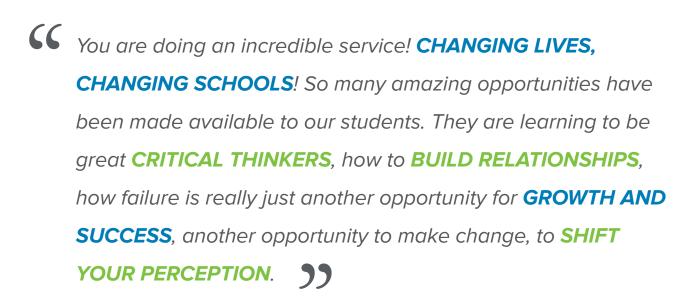
Strathmore High School, Strathmore ALBERTA'S FIRST NET ZERO HIGH SCHOOL | \$4785

Tilley School, Tilley ESCAPING STINKY AIR | \$5000

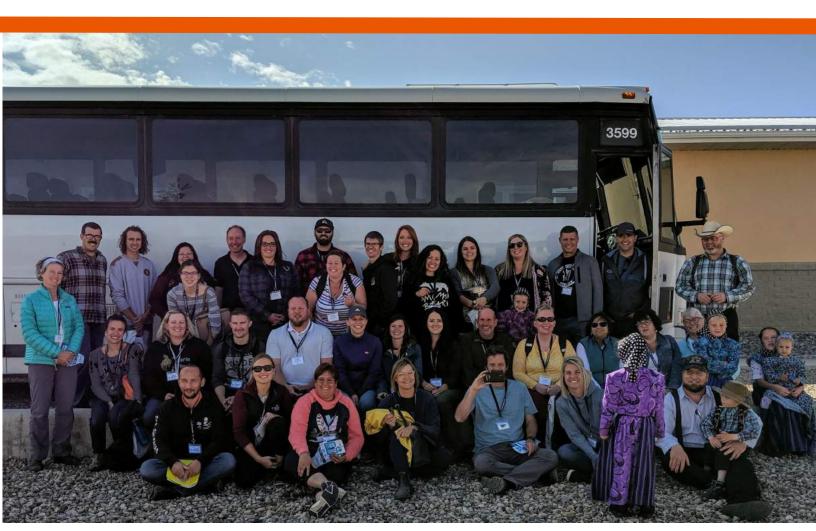
"I came in as a first-time grant recipient with little idea of what to expect. This has easily been the best professional development I've had!"

- Brayden Ursaki, Lloydminster





- Roxy Zahara, New Myrnam School, Myrnam







"I look forward to utilizing your supports even more as my journey continues. More importantly, I look forward to maintaining contact with the

maintaining contact with the tremendous staff that you have. I find great energy in being around people who quite obviously enjoy what they do."

- Ryan Mann, Stony Plain

"I have shared many stories about the experiences I had during this PD with my students already. The scope of influence that these conversations will have on my classroom over the next 3 years is immeasurable. Currently one of my classes is very excited about designing and building a power generating bicycle." - Mike MacDonald, Calgary



"Networking and connecting with other like-minded teachers, experts, and innovators has been refreshing, hopeful, and inspiring." - Steve Schultz, Lacombe

### Dear Inside Education...

"You have a real knack at getting "inside" the topics, "inside" the issues and introducing us to thoughtful, engaging professionals with different perspectives, yet familiar passion for the work they do. The world is truly complex and you help us to see that through the awesome field trips, engaging guest speakers and hands-on activities." "Thanks so much for supporting teachers so graciously. Your energy, enthusiasm, and transparency is so refreshing. I love the hard work you do to provide innovative and unique tours and presentations. I truly feel valued and energized after this inservice. I have learned so much that I will directly use in my classroom."

- Shelley Dyrland, Rimbey



### Classroom Connections

Across the province, from Medicine Hat to High Prairie, teacher participants are sharing the knowledge they learned on the program with thousands of students. From Grade 1 to Physics 30, here are some of the wonderful and creative ways they are incorporating the content learned on the program into their lessons:

"We started a Innovation Project today and discussed CanaPux and also the grants and awards available to people that come up with innovative ideas for climate change."

- Shelly Sutcliffe, CTS teacher at St. Theresa Catholic Middle School

"I have contacted the Medicine Hat College to take my Grade 5/6 class on a tour of their Renewable Energy Microgrid and how it uses solar power and wind power to generate electricity. I have contacted PEEL to come to my classroom and am currently drafting a proposal for parent council to sponsor the purchase of solar panel cars for students to build. I will better be able to explain the Enmax Energy Center and how the grid system works with renewable energy and non renewable sources working together. This PD has made me excited to teach Science this year!!"

- Samantha Willier, Grade 5&6 teacher at Webster Niblock School, Medicine Hat.

"Our A+ project involves studying the carbon footprint of our food and we will compare it to growing our own food. What we learned in this PD session will directly help us in our exploration and action project."

- Robert Tymofichuk, Assistant Principal at New Myrnam School, Myrnam. "Being around teachers passionate about teaching and the environment was incredible. I have shared my experience with friends and family. Because my students are in grade 1 I will be talking to them about the environment and how to minimize our energy use. Students said we don't need all three rows of lights on in our room and we now only keep the one center row of lights on."

- Tiffany Sweeney, Grade 1 teacher at St. William School, Calgary.

" The Shepard Energy facility will feature prominently in my Physics 30 course when we talk about EM induction and conservation of energy." - Ian Doktor, Physics teacher at Jasper Place High School, Edmonton.



"I am excited to share Canapux technology with my students to learn about the intersections of innovation, economics, technology, oil and gas, and the environment." - Will Sherstabetoff, Junior High teacher at Griffith Woods School, Calgary.



### Partners, **Expert Guests**, and Tour Hosts

We extend deep thanks to our program partners for their laudable support of the 2019 Renewable Energy & Climate Change Program. Participants voiced their appreciation for making the program such an accessible opportunity and for being provided a full scholarship to attend the program.

Inside Education is proud to work with partners committed to excellence in natural resource education. A special thank you to BP Canada and TC Energy for supporting the A+ for Energy Grant Program. We would also like to recognize ENMAX, Energy Efficiency Alberta, and the Government of Alberta for their support of this PD program.

"I loved every single visit and activity of the Energy and Climate Change Professional Development Program of 2019." - John Taylor



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

James Auld | CN Railway Lisa Pollio | PetroLMI **Doug Owens** | Brookfield Residential Dean Guidolin | Brookfield Residential Kyna O'Gallagher | Relay Education Jennifer Janzen | Alberta Tomorrow Jaclyn Angotti | CPAWS- Southern Alberta Christine Avey | PEEL **Terry Dumonceau** | ENMAX Shepard Energy Centre Ron Loeffler | ENMAX Shepard Energy Centre David Webb | Egg Farmers of Alberta **Darrel Mandel & Brant Colony** | Brant Colony John Drinkwater | BP Canada **Rebekah Janzen** | *TC Energy* Dr. Maureen Kolla | Alberta Innovates





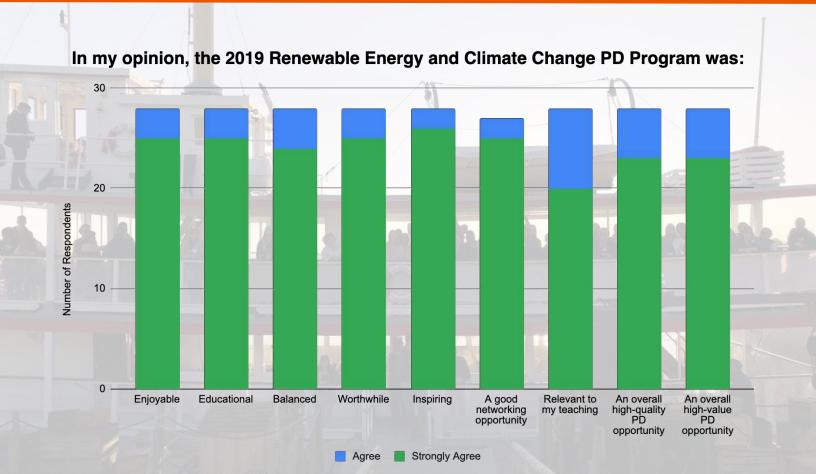






#### Program Impact and Feedback

Inside Education is proud of the many successes of the Renewable Energy & Climate Change Professional Development Program. The follow-up survey results indicate that it was an exceptional learning experience that is already translating into meaningful classroom impact. Inside Education estimates that more than 2000 students will benefit from the experience of the teacher participants this school year as they infuse their learning into their lessons. We are pleased to share some of our program feedback below.





"It was an amazing PD opportunity with a variety of speakers, and on-site visits. It was also nice to have the BBQ, networking and celebration at Heritage Park. Overall it was very well organized and the staff from inside education are extremely passionate and committed to providing the best PD experience for the delegates that they can. Great Job!"

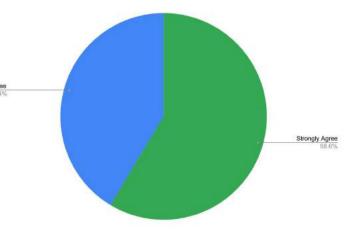
- Jennifer Dusyk-Johnson, Cold Lake

# 100%

After participating in the program 100% of survey respondents indicated that they have increased confidence bringing energy and climate related topics into their classroom.



THIS PROGRAM HAS ENHANCED MY TEACHING AND WILL HELP ME PROVIDE INFORMATIVE, ACCURATE, AND HIGH-QUALITY LEARNING EXPERIENCES FOR MY STUDENTS





#### **Summary and Futures**

Inside Education is thrilled by the outcomes of the 2019 A+ for Energy Teacher Professional Development Program: Renewable Energy and Climate Change. We received an overwhelmingly positive response from participants which was captured through both the participant's "Dear Inside Education" letters as well as in the post-program survey. Overall, teachers left the program feeling supported in their projects, refreshed, and inspired to head back to the classroom and begin a new year.

We expect demand for energy and climate related programs and resources to grow as teachers share their knowledge, ideas, and experience with their colleagues from across Alberta. We are committed to developing high-quality learning opportunities to support energy education in Alberta. Inside Education recognizes that energy literacy is an important area of study for today's students; the key to creating a generation of informed stewards and decision makers.

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