



EDMONTON ENERGY EFFICIENCY EDUCATION PROGRAM (E3) FALL 2017 REPORT



Overview

The Edmonton Energy Efficiency (E3) Education Program was a two day experiential learning program that took place in the heart of Edmonton. The program examined how local energy efficiency and conservation actions connect to the larger climate conversation. The event included tours, workshops and expert presentations on renewable and alternative energy, net-zero and green buildings, sustainable transportation, technology, and careers. The program also provides tools and resources to empower students to take action in their school and communities.

This program was open to teams of junior and high school students from grades 7 - 12 across the greater Edmonton area.

This year, E3 was fully subscribed with 74 participants: **64 students and 10 teachers from 8 different schools**. This year marks the fifth year that Inside has offered a youth summit exploring energy in Edmonton.

The program was piloted in 2012 under the name Generate Edmonton, and held in 2014 under the name Energize: Youth Energy Symposium (EYES), and in 2015 as Edmonton Energy Efficiency (E3) Education Program.



E3 participants finishing off the E3 with lots of new ideas!

In This Report:

Participants	2
Program Goals	3
Program Partners	3
Program Overview	3-4
Program Evaluation	4-5
Participant Feedback	5
Expected Impact	5
Program Summary	6

Participants

Students from Edmonton, Tofield, and Jasper came together for the summit. We had a diverse group of students from four different school boards, and a combination of public, charter, and private schools. Each of the schools attending brought unique perspectives. Notably:

- Academy at King Edward is made up of students with special needs that have average to above average intelligence.
- Inner City High School is a very small school that works with inner city students.
- Headway School is home to many new Canadians and first generation Canadians mostly from the Punjabi community.
- Queen Elizabeth High School is home to the Innovate program, where students can earn credits in an unschooled course.

Since the first program in 2012, Inside Education has reached **307 participants from 35 schools.**

Participant Schools

Edmonton

- Academy at King Edward
- Aurora Academic Charter Middle School
- Bishop David Motiuk Elementary/ Junior High School
- Inner City High School
- Headway School
- Queen Elizabeth High School

Outside Edmonton

- Jasper Junior/Senior High School
- Tofield School



Students engaging with various local experts on various EE topics

Year	Program Name	Participants	Teachers	Students	Schools
2012	Generate Edmonton	51	7	44	6
2014	Energize: Youth Energy Symposium (EYES)	35	5	30	5
2015	Edmonton Energy Efficiency (E3)	70	12	58	8
2016	Edmonton Energy Efficiency (E3)	77	14	63	8
2017	Edmonton Energy Efficiency (E3)	74	10	64	8
Total		307	48	259	35

Program Overview

Tuesday, December 5, 2017	Wednesday, December 6, 2017
Welcome & Introductions	Green Building - Stefanie Drozda, City of Edmonton - an introduction to the nuances of building sustainably.
Energy Efficiency 101 - Daniel Klemky, Energy Efficiency Alberta	Tour: Landmark Homes NetZero House - A visit to Landmark Homes' affordable NetZero home, produced by ACQBuilt.
Experts of the Roundtables - Get to know some of the bright minds working in Edmonton energy efficiency	Tour: Acqbuilt Inc. Fabrication Plant - A tour of the facility where one of Alberta's largest builders makes their homes.
Climate Change Adaptation and Resiliency Strategy - Heather Wheeliker, City of Edmonton	Advancing Electric Vehicles in Edmonton - Howaida Hassan, City of Edmonton
The City of the Future - Robyn Webb, City of Edmonton - An insightful look into the design of sustainable neighbourhoods in Edmonton.	Solar Cars - Inspired by alternative transportation, students built small solar cars to take back to their schools.
Tour: University of Alberta Sustainability - Find out what the University of Alberta is doing to cut down on energy consumption and waste	Building Blocks of Sustainability - An interactive world cafe model, focusing on critical questions to help inspire student-led projects. These conversations were based on questions formed during the summit, and facilitated by attending teachers.
Tour: The NAIT Alternative Technology Facility - A hands on tour of NAIT's training facility, well known for having the most energy efficient technologies under one roof.	

Program Goals

1. Showcase local Energy Efficiency initiatives and research
2. Inspire and provide opportunities for Energy Efficiency initiatives for school and homes
3. Help facilitate a broader understanding of the connection between energy efficiency, sustainability, and climate change



Alberta

ALTALINK
A BERKSHIRE HATHAWAY ENERGY COMPANY

Edmonton

ENMAX

 Ted Rogers
Scholarship Fund

Thank you to our
partners who
made E3
possible!

Program Overview (continued)

This program provided learning opportunities through tours, workshops, and expert presentations. Students had a chance to attend two out of the four tours. The tours included: a sustainability tour of the University of Alberta (with a special trip to the Future Energy Systems engineering labs), a tour of NAIT's Alternative Technology facility, a tour the ACQBuilt Inc. home fabrication plant, and a tour of the Landmark Homes' net zero home.

Expert presentations included formal keynote speeches and smaller breakout discussion where students had the opportunity to interact with ten energy efficiency experts. E3 concluded with an interactive workshop, with help from attending teachers, to help synthesize and critically assess students questions formed over the two-day summit.



Students touring the ACQBuilt Facility

Program Evaluation

Teachers and students were given the opportunity to evaluate their experience at E3 through an online survey. All respondents shared very positive and encouraging reflections. Other feedback was obtained through direct email with teachers post-summit.

All of the respondents reported that each of the components of E3 was either "good" or "excellent" - with some wishing that they could have attended all of the tours! Highlights included the off-site visits and the discussions surrounding innovations in the community. Teachers and students enjoyed discussions that allowed them to understand what was spoken about in practice.

100% of respondents were empowered by E3 to get involved in sustainability initiatives in their schools

100% of respondents would recommend E3 to other teachers and students

100% of respondents have ideas for leadership projects to take back to their school

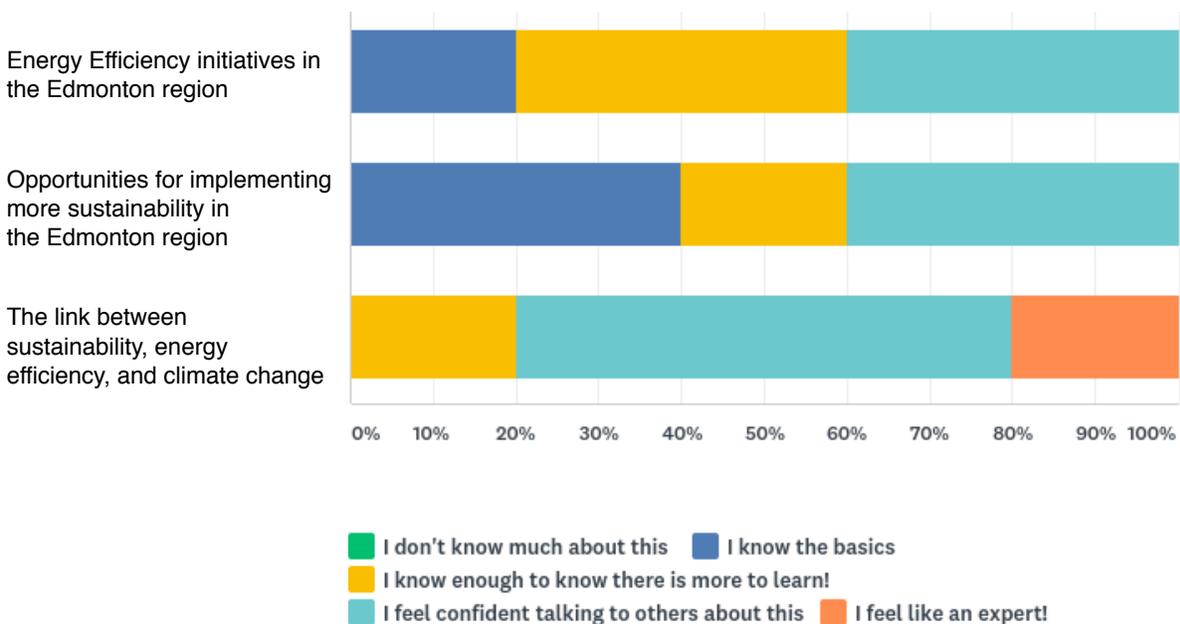


Top 3 words from respondents that come to mind when thinking of "sustainability"

Program Evaluation (continued)

Participants completed a survey about their understanding of a range of topics covered at E3. All participants indicated they had an understanding of Energy Efficiency initiatives and implementation opportunities in the Edmonton region, while 40% of those would be confident talking to others! One of the main program goals was to help participants better understand the relationship between energy efficiency, sustainability, and climate change - 60% of respondents reported their confidence to discuss this link with others, while an additional 20% of respondents reported a high degree of understanding.

Respondents rating their understanding about:



Program Feedback

“The students expressed interest in looking at energy use in the school and ways to improve. Both Science and Social teachers have talked about creating some type of school wide project after attendance at the E3 summit.”

-Inner City School, Edmonton

“We were moved and inspired to take action against climate change. The presentations provided us with new knowledge and tools to conserve energy. We want to put this new knowledge into action and share what we learned with our school community. We want to be global citizens.”

-Academy at King Edward, Edmonton

Expected Impacts

ENMAX partnered with us to offer a \$500 **Energizing Schools Energy Education Grant** to which all participants of the three regional summits can apply. The grant will help schools reach their project goals, such as these projects that teachers and students were excited about after E3:

- Engaging in a “Shut the Sash’ fume hood practice campaign
- Reduce phantom power on Chromebook charging stations using smart power bars
- Performing a school energy audit using tools and knowledge gained from E3
- Work towards building an outdoor classroom
- Installing motion sensor lights in washrooms

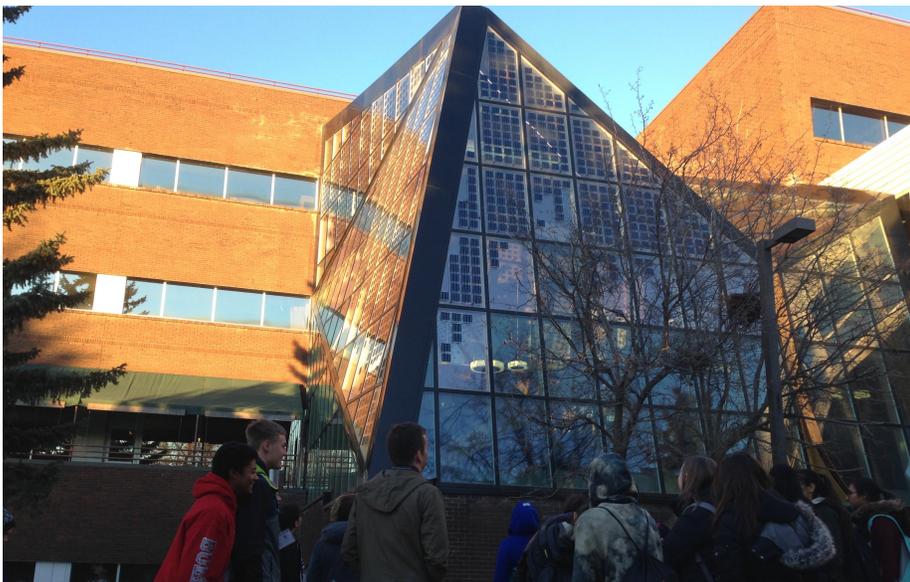
Program Summary

The Edmonton Energy Efficiency program on December 5-6, 2017 was a great success! We were fully subscribed with 10 teachers and 64 junior and high school students! Collectively, we learned about local and global initiatives in energy efficiency, sustainability, and how these topics intersect with climate change. **E3 2017** continued on the success of the previous iterations of the summit since inception in 2012 and Inside Education has now reached **307 participants** from **35 schools!**

E3 had a broader reach than usual this year with teams coming from Tofield and Jasper! This addition provided a very interesting and necessary rural perspective to the discussion surrounding sustainability. In total, **E3 2017** comprised of 8 schools from four school boards, and a blend of public, private, and charter schools.

Students engaged with ten experts at the roundtables and toured four off-site locations. During the University of Alberta tour, students were provided the opportunity to tour four different Future Energy Systems research labs. In the survey and correspondence post-summit, feedback showed students left with an increased or new-formed interest in getting involved with energy efficiency initiatives at a school level, that will also extend to outreach opportunities, facilitating knowledge transfer from their E3 participation.

We are happy with the successes of E3. Using feedback from previous years, we continue to refine our approach to offer the highest impact education programs and look forward to continuing to offer energy education youth summits in the capital city!



Students at E3 admire and are inspired by innovative design like these solar panels, distributed to account for shade from the local trees.

For further information please contact:
Steve McIsaac, Executive Director (smcisaac@insideeducation.ca)
André Morson, Educator (amorson@insideeducation.ca)

Successes

- Connected post-secondary institutions, local businesses, and provincial and regional governments with students and teachers
- Offering opportunity for receiving the ENMAX: Energizing Schools Grant to all E3 participants
- Participation from 8 schools with diverse student bodies and philosophies

Next Steps

- Continue learning about energy efficiency initiatives in order to provide new experiences at future E3 programs
- Continue involving more partners, professionals and participants in Inside Education youth summits in the region

