

YOUTH ENERGY ENGAGEMENT TOOLKIT









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Introduction

Purpose & Context

Traverse City Light & Power is Traverse City (referred to as TCLP throughout this toolkit), Michigan's municipal electric utility. They are interested in developing a comprehensive plan for engagement with local youth and families to better serve the community and make sustainable energy practices more accessible to residents. Although this guide was created primarily with TCLP and the Traverse City context in mind, it is hoped that the ideas and activities suggested for their youth engagement strategy can be broadly applied to organizations and communities across Michigan.

Why Pursue Youth Engagement?

From lamps and phones to cars and homes, every aspect of our daily lives depends on energy. As the world attempts to transition to more sustainable energy sources and practices, there is a growing need for improved energy literacy among all people. But it will be especially important to engage youth (defined in this toolkit as people aged 5 to 25) in these efforts to ensure that they have a foundation of knowledge and tools to make sustainable energy decisions throughout their entire lives. By pursuing youth engagement activities, energy-focused organizations (including governments, utilities, companies, and nonprofits) are able to build meaningful relationships and invest in the future of their communities.

Engagement Examples

So, what could youth energy engagement look like? We can look to a few organizations around Michigan that have utilized innovative strategies to connect with local youth and families as examples.

Holland Board of Public Works

The city of Holland's Board of Public Works creates many opportunities for youth to connect with local energy operations by making regular classroom visits, putting on family-friendly events, and providing educational materials through their website. Their addition of an extensive educational visitor center to a local power plant has been especially effective in engaging young residents.



(Source)

Engagement Examples Cont.

Lansing Board of Water & Light

The Lansing Board of Water & Light has a long history of meaningful youth engagement in the area. They collaborate with the Michigan Department of Education, Consumers Energy, and the National Energy Foundation to develop fun and informative energy-related lesson plans, activities, and opportunities for local students and families. They also provide specialized resources and programs to families struggling with their energy bills.



(Source)

DTE Energy

Across the state, DTE Energy runs a variety of innovative youth and family programs focused on energy education, bill support, and job training. One of their most successful initiatives promotes electricity safety among students through field trips, classroom visits, and interactive online activities. They are also able to maintain strong partnerships with residents through their active participation in community projects and events.

Timeline Development

Getting Started

It will take planning, time, and resources for your organization to develop a meaningful and effective relationship with youth and families in your community. No matter where you are in this process, it will be helpful to create a timeline that establishes specific, measurable, achievable, and timely goals for your organization moving forward.

Organizations with successful youth energy engagement programs generally follow timelines with four distinct phases: Pre-Planning, Initial Outreach, Early Collaboration, and Advanced Collaboration.

On the following pages are a sample youth energy engagement timeline for TCLP and further details about each of its phases.



(Source)

Sample TCLP Youth Engagement Timeline



Pre-Planning

This phase is meant to emphasize the importance of reflection, planning, and community visibility in your organization's process before reaching out to potential partners. Steps include:

1. Reflecting on why you want to engage with youth in the first place. What do you hope to achieve and why?

2. Thinking about what you can offer potential partners that can help them achieve their goals. This could include expertise, resources, capacity, collaboration, etc.

3. Determining who on your team will be taking the lead on connecting with potential partners and/or developing youth programming materials.

4. Creating a list of potential partners and their contact information.

5. If open to all community members, attending meetings and events held by potential partners to make introductions and build rapport.

6. Developing ideas for potential youth and family-focused events and initiatives for your organization.



(Source)

Initial Outreach

This phase is dedicated to your organization's process of outreach to and building rapport with potential partner organizations. Steps include:

1. Conducting initial outreach to potential partners. Different potential partners will be receptive to different forms of communication, so utilize methods like emails, phone calls, or in-person meetings to connect as needed.

2. Taking time to identify shared goals and needs once potential partners have agreed to discuss opportunities for collaboration. This could include promoting more hands-on STEM experience for youth, building stronger community relationships, etc.

3. Beginning to identify areas of initial collaboration once your organization and potential partners have agreed on shared goals and needs. This could include sponsorship of their events, presence at their events, collaboration on sustainable energy projects, etc.



(Source)

Early Collaboration

This phase represents the beginning stages of collaboration between your organization and partners. Steps include:

1. Sharing educational resources for youth, parents, and educators that can be utilized by partners on your organization's website or other public channels. These could include things like articles on energy-saving tips for college students, class worksheets, educational videos, and more. Because much of this content has already been created by other organizations, the main role of your organization will be to compile and direct people to it.

2. Beginning to identify opportunities for your organization to plug into partners' activities that involve direct interaction with youth and families. This could include coming into classrooms with activities for energy-related units, helping to run a demonstration at a STEM camp, offering resources at an event for families struggling to pay their electricity bills, etc.

3. Connecting regularly with partners about what is and is not working in your partnership.



(Source)

Advanced Collaboration

This phase represents the advanced stages of long-term collaboration between your organization and partners. Steps include:

1. Establishing a set of events and opportunities your organization and partners can collaborate on every year. This could include an annual energy fair, school career day, tour of a local solar array, etc.

2. Developing an internship or job training program within your organization to help high school and college students gain valuable energy-related skills, experience, and knowledge.

3. Assessing the success of your engagement efforts so far and determining areas for improvement.

4. Continuing to connect regularly with partners about what is and is not working in your partnership.



(Source)

Best Practices

Identifying Partners

A crucial step in developing a successful youth energy engagement strategy is identifying partners with shared goals to collaborate with. Below is a non-exhaustive list of potential partners to consider reaching out to:

Traverse City:

- Traverse City Area Public Schools
- Northwest Michigan College
- Grand Traverse Bay YMCA Science & Nature Camp
- Old Mission Peninsula School Science and STEM Inquiry Camp
- Girl Scouts of Michigan Shore to Shore Service Center
- Great Lakes Children's Museum
- Northwest Michigan Community Action Agency

General:

- Schools and colleges
- Summer camps with a STEM focus
- Scout troops
- Head Start and Maternal-Infant Health programs
- Recreation centers



(Source)

Youth-Focused Activities

There are many interactive and fun activities that your organization can utilize to convey important energy-related concepts to families and youth in homes and classrooms.

Here are a few activity ideas to consider:

Activity Title & Link	Торіс	Description	Target Age	Estimated Cost Per Classroom
<u>Static</u> Exploration	Energy Basics	Students learn about why static makes our hair stand up, moves objects, and connects to the electricity we use in our homes.	5-6	\$20
<u>Energy</u> <u>Collage</u>	Energy Basics	Students identify which items in their homes and classrooms do or do not require energy, learn energy basics, and create a related art project.	5-6	\$20
<u>Build A</u> <u>Pinwheel</u>	Wind Energy	Students build a pinwheel (that can also do work if you choose to incorporate the paperclip into the activity) and learn about the basics of renewable and/or wind energy.	6-8	\$15

Youth-Focused Activities Cont.

Activity Title & Link	Торіс	Description	Target Age	Estimated Cost Per Classroom
<u>Which</u> <u>Lightbulb Is</u> <u>Best?</u>	Energy Efficiency	Students investigate what different lightbulb watts mean and whether incandescent or LED bulbs are more energy efficient.	6-8	\$15
<u>DIY Solar</u> <u>Oven</u>	Solar Energy	Students learn about the energy provided by the sun and how we can use it by building solar ovens out of recycled materials.	10-12	\$20
<u>LED Simple</u> <u>Circuit</u>	Energy Basics	Students use problem- solving skills and LEDs to explore simple circuits- how they're built, how they work, and how they connect to electricity.	10-12	\$30
<u>Our Electric</u> <u>Footprint</u>	Energy Efficiency	Students determine how much electricity is used by different items in their classroom and learn about what happens when a plug goes into a socket.	12-14	\$30+

Youth-Focused Activities Cont.

Activity Title & Link	Торіс	Description	Target Age	Estimated Cost Per Classroom
<u>Insulation</u> <u>Experiment</u> or <u>Competition</u>	Energy Efficiency	Using a few different kinds of materials, students compete to see who can make a structure with the least amount of heat loss.	12-14	\$30
<u>Human</u> <u>Power</u>	Energy Basics	Students become familiar with the concepts of work, energy, power, and electricity through a hands-on experiment.	14-18	\$30
<u>My</u> <u>Electricity</u> <u>Use</u>	Energy Efficiency	Students learn how to calculate how much electricity they use every day in their homes and how they can save energy.	14-18	\$O
<u>Energy</u> <u>Career Day</u>	Careers	Students gain insight from energy professionals about what a career in the energy field may look like.	14-18	\$O

Youth-Focused Events

Regularly hosting or being involved with local events is an extremely effective way for organizations to connect with many residents at once and increase their visibility within a community. Here are a few youth and family-focused event ideas to consider:



Energy Fair

Interactive booths are set up for residents to learn about your organization, energy-efficient products and practices, and other local environmental organizations.



Induction Cook-Off

Local chefs compete to make the best dishes using nothing but induction cooktops, showcasing the effectiveness of an electric alternative to gas stoves.



Local Energy Site Tour

Families and students tour local power plants, solar arrays, or wind farms to gain a better understanding of where their electricity comes from.



School Energy Reduction Competition

Over the course of the year, local schools compete to have the greatest reduction in energy usage by employing energy-saving measures.



Family Open House

Local families are invited to learn more about your organization and have the opportunity to be entered in raffles to win energy-related prizes.

Managing Costs & Capacity

Like most outreach strategies, youth engagement will require resources from your organization like time, staff, and money. Your organization can reduce these costs and build the necessary capacity to be effective by utilizing the following strategies:

- *Partner With Local Utilities or Government*: Coordinating your organization's engagement efforts with local electric utilities or government allows you to share costs, staff, influence, and expertise.
- *Connect With Local Students*: Older students in local high schools and colleges often have great ideas on how to engage younger audiences, so consider developing an internship or service program in your organization that will allow you to work together.
- Utilize Pre-Existing Resources: Groups like the <u>National Energy Foundation</u>, the <u>Energy Information Administration</u>, and <u>Project Energy Savers</u> provide a variety of widely-applicable youth energy engagement resources that can help your organization save time and money.
- *Pursue Relevant Funding*: Many of your organization's efforts and events may be eligible for grant support, so explore potential funding opportunities through the <u>Michigan Department of Environment, Great Lakes, & Energy (EGLE)</u>, <u>National Energy Education Development Project</u>, or <u>Energy Foundation</u>.



<u>(Source)</u>

Measuring Success

In order to measure the success of your organization's youth energy engagement strategies overall, it is important to think about the goals you developed in the early stages of your timeline. Regularly taking time to reflect on your progress toward these goals internally and with partners can help your organization assess the success of your efforts so far and determine what you should be doing next.

Your organization should also connect with partners often to discuss the status of your relationship. Taking steps to ensure that your partnerships remain equitable, respectful, and meaningful for all groups involved can help to significantly improve your effectiveness.

Although not all impacts can be quantified, tracking data like the number of event attendees, downloads of educational content, views of youth-focused social media posts, new signups on newsletters, or new connections made with local teachers can also give you insights into how effective your organization's youth engagement efforts have been.



(Source)

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