



Request for Proposals: Clean Energy Activity Day
2019 CEAD

November 8, 2018
Year Round Open Solicitation

Total Funding Available: \$100,000 Per Fiscal Year

All proposals must be submitted to:
Tamika Jacques, Ed.D.
tjacques@masscec.com

I. SUMMARY

The Massachusetts Clean Energy Center (“MassCEC”) is issuing this Request for Proposals (the “RFP”) under its Workforce Capacity Building Program for the “Clean Energy Activity Day” Program. The program is designed to expose Massachusetts students in Kindergarten through Eighth Grade to clean energy concepts, career pathways and higher-education pathways through one-day educational events. The events will showcase Clean Energy/STEM topics and make students aware of higher-education opportunities, STEM Camps and other similar resources for students.

Successful applicants will propose a one day (minimum three (3) hours) specialized Clean Energy Activity Day event to take place either during the week or on a Saturday that provides a hands on learning opportunity for students either at (a) the students’ current place of education, or (b) a clean energy business or organization. The event will be geared towards one of two age groups: (a) Kindergarten to 4th Grade (K-4); or (b) 5th Grade to 8th Grade (5-8).

Schools will partner with a clean energy business to provide guest speakers who will present on their personal careers, types of classes needed to work in clean energy and higher-education and career pathways that lead to the clean energy workforce, and create a hands-on learning experience for participating students to understand basic clean energy concepts.

MassCEC anticipates awarding up to ten (10) “Clean Energy Activity Day” events per fiscal year, up to \$8,000 per application from **Track 1** or up to \$10,000 per application from **Track 2**, as more fully described below. Preference will be given to applicants located in Gateway Cities¹ and applicants that work with diverse populations and in diverse geographic locations.

II. ABOUT MASSCEC

The Massachusetts Clean Energy Center (“MassCEC”) is a publicly-funded agency dedicated to accelerating the success of clean energy technologies, companies and projects in the Commonwealth—while creating high-quality jobs and long-term economic growth for the people of Massachusetts. Since it began operating in 2009, MassCEC has helped clean energy companies grow, supported municipal clean energy projects and invested in residential and commercial renewable energy installations, creating a robust marketplace for innovative clean technology companies and service providers.

III. PROGRAM GOALS AND DESCRIPTION

MassCEC partners with Massachusetts elementary and middle schools to provide students with a day dedicated to clean energy and STEM education and hands-on activities.

¹ <http://www.mass.gov/hed/docs/dhcd/cd/hdip/gatewaycities.docx>

Aligning with the Massachusetts STEM Council Frameworks², MassCEC offers programs to develop courses and curricula that provide training to cultivate specific skills sets for a variety of trainees (*e.g.*, trades people, vocational and college students, out of school youth and adults, and in-school youth). In particular, MassCEC's Clean Energy Activity Day (a) builds on awareness programs that provide students with access to integrated career pathways in STEM fields, beginning in middle school and reaching into college and workforce; and (b) focuses on under-represented populations and communities with high concentrations of low-income residents, involving both students and parents³. Past awardees include Miscoe Hill Middle School (Mendon), Bourne Middle School (Bourne), Neary Elementary School (Southborough), Point Webster Middle School(Quincy), Oak Ridge School (Sandwich), Lt. Clayre P. Sullivan School (Holyoke), Mario Umana Academy (East Boston), Reingold Elementary School (Fitchburg), Manthala George Jr. Elementary School(Brockton), Higginson-Lewis Elementary School (Boston), Pierce Middle School (Milton) and Auburn Middle School(Auburn).

IV. ELIGIBILITY

All Massachusetts private and public elementary and middle schools that have students in Kindergarten through Eighth Grade are eligible to apply to this RFP.

V. ESTIMATED TIMELINE

Submission, Schedule, Deadline and Information Session

Request for Proposals Release Date	Thursday, November 8, 2018,
Close of Applicant Webinar Registration	Friday, December 7 2018
Applicant Webinar*	Wednesday, December 12, 2018, 1pm
Deadline for Written Questions	Ongoing
Questions and Answers Posted from Webinar	Monday, December 17, 2018
Application Due Date	Applications are received on a rolling basis until funding has reached its maximum capacity
Applicants Notified of Status	45 days after submission

* An optional applicants' webinar will be held on Wednesday, December 12, 2018, at 1 pm. Answers to generally applicable questions will be allowed during the webinar and questions and answers will be

² <http://www.mass.edu/stem/home/council.asp>

³ See *id.*

posted on the MassCEC website via a Q&A document. Directions to participate will follow registration. The webinar will be posted on MassCEC's webpage on December 17, 2018.

All potential applicants interested in participating in the webinar must register by December 7, 2018, at 4 pm. To **register, please email Josh Kriesberg at jkriesberg@masscec.com. Please include "2019 Clean Energy Activity Day Webinar" in the subject line of the email.**

VI. SCOPE OF WORK

Under Track 1, applicants will propose a Clean Energy Activity Day event that will be held during a regularly scheduled school day (Monday – Friday) between January 2019 and December 2019. The maximum award for a Track 1 event will be \$8,000.

Mandatory Clean Energy Day Components for Track 1 & Track 2:

Proposals must contain a plan for the delivery of a "Clean Energy Activity Day" that includes the following mandatory components:

1. **Applicant Teams:** Applicants should list all event participants. At a minimum, a successful "Clean Energy Activity Day" application will have a Program Coordinator located at the applicant school who will serve as the main contact and organizer of the "Clean Energy Activity Day" event, and two (2) additional team members who will assist the Program Coordinator with logistics and operations of the "Clean Energy Activity Day." Applicants must provide the names and qualifications of the Program Coordinator and the two team members who will support the Program Coordinator. The Program Coordinator will schedule planning hours to plan and execute a (minimum) three hour "Clean Energy Activity Day" that will focus on one or more sub-sectors of the clean energy economy (e.g., energy efficiency, solar photovoltaics, offshore wind, etc.). Additional team members may include higher education partners, student representatives from the applicant school, clean energy specialists or clean energy businesses to serve as advisors to the "Clean Energy Activity Day." If necessary, Program Coordinators and team members may be paid for all planning activities of the "Clean Energy Activity Day" from the MassCEC award.
2. **Guest Speakers from a Clean Energy Business:** Applicants must propose to have at least two speakers from a clean energy business that can communicate clean energy concepts and basic career awareness to the student audience group (either at a K-4 or 5-8 grade level). Business speakers should be able to provide an engaging story of their career and explain their work in clean energy with how it relates to current math and science curriculum. Successful applications will include a description of why/how speakers were chosen, length of guest speakers' professional time working in the clean energy industry, their experience working with elementary students (if any), and the clean energy concepts and sub-sector guest speakers will cover. Although, MassCEC strongly encourages applicants to ask for business speakers to donate their time, applicants may seek MassCEC funding to provide modest stipends for guest speakers if necessary. (See list of businesses who would like to participate in a "Clean Energy Activity Day").
3. **Clean Energy Hands-on Learning Activity:** Applications must propose a hands-on learning activity that showcases clean energy equipment or models (*i.e.*, solar, water, wind, coding, and engineering) and that can be directly touched and seen by students. The activity should include an explanation of (1) the

type of equipment or models that will be used and purchased, (2) how the equipment will be used to explain clean energy, and (3) who will facilitate the hands-on learning activity (*e.g.*, business representative currently working in clean energy, science or math teacher located at the students' school, higher-education professor knowledgeable in clean energy curriculum and activities). If the applicant plans to purchase equipment, please provide an explanation how the equipment will be facilitated to students using either of following options: 1) Applicant will purchase equipment/equipment models, students will construct equipment at "Clean Energy Activity Day" and students will take home their equipment models; 2) Applicant will purchase equipment/equipment models and students will construct equipment during "Clean Energy Activity Day", students will not be allowed to take home equipment and equipment used for "Clean Energy Activity Day" will be stored at applicants' school for future curriculum integration; or 3) Applicant will purchase equipment/model equipment, students will construct equipment at "Clean Energy Activity Day", students will take home their equipment models and applicant will also purchase additional equipment/equipment models to be intergraded into future curriculum outside of "Clean Energy Activity Day". Applicants also have the option of bringing students to a clean energy business that will allow students to have a hands-on learning experience with clean energy equipment. If proposing an off-site business field trip, students must be able to see equipment and have a facilitator (*e.g.*, clean energy business employee) who will lead the hands-on learning experience. Activity should be able to relate to current math and science curriculum being taught in school. Applicants proposing site visits must plan accordingly in their budget for transportation and lunch expenses, if needed.

4. **End of "Clean Energy Activity Day" Gift Bags:** Students must take home a gift bag at the conclusion of the event. This can include information on public/private higher education entities and community colleges that offer math & science majors (admission brochures), information on private/public STEM camps, information on community colleges or higher-education year round/summer STEM camps or programs (regional/location or statewide), information of STEM activities for students that are local to their region (museums that have clean energy/STEM exhibits or libraries that have STEM learning) and information on the Massachusetts Clean Energy Center provided by MassCEC. Optional items include: pens with names of clean energy companies, notebooks with clean energy company logos or names, and other take-home giveaways or prizes. Applicants must list proposed information/brochure that will be included in the bag. MassCEC will provide bags to hold information.
5. **Outreach and Publicity Strategy:** Applicants should outline a plan to publicize the "Clean Energy Activity Day" in their school/community by using published newsletters, applicants' website, blog, advertisements, flyers and/or social media channels. The proposal should list the communications channels by name and include a calendar or schedule of event promotion efforts. Elements of the outreach/publicity strategy should include:
 - A willingness to host state and local public officials, industry representatives and members of the media if they choose to attend;
 - A willingness to communicate their participation in the event within the event promotion schedule or calendar in coordination with MassCEC (MassCEC will amplify promotional efforts via outreach to local press, industry representatives and community leaders);
 - A commitment to participate in a MassCEC-hosted conference call with all awarded applicants on how to execute a publicity campaign to your students, parents and the wider community; and

- A description of the event space.
6. **Student Attendance**: Applicants should include a compelling strategy to attract at least 100 student participants, with a goal that at least 50% of student participants be female.

Track 2: Saturday Event

Under Track 2, applicants will propose a Clean Energy Activity Day event that will be held on a Saturday between January 2019 and December 2019. Track 2 events will design an event that will incorporate the participation of parents and guardians in addition to the school children. The maximum award for a Track 2 event will be \$10,000.

In addition to the mandatory requirements listed under Track 1, Track 2 applicants propose a Saturday event that is a minimum of four hours and must include the following:

1. **Student & Parent/Guardian Attendance**: Applicants should include a compelling strategy to attract at least 100 student participants and 100 parents/guardians, with a goal that at least 50% of student participants be female.

VII. HOW TO APPLY

The Application and Budget Forms **must** be complete. MassCEC recommends that applicants carefully follow instructions and prepare complete, clear, and concise applications. It is the sole responsibility of the applicant to ensure that its application is complete, meets minimum threshold requirements and is properly submitted to MassCEC. MassCEC reserves the right to only consider applications that in its sole judgment meet the minimum threshold and submission requirements. The application must demonstrate a firm commitment from all partners involved in the event.

The following items must be submitted to MassCEC as part of an application package:

- Two electronic copies of the Application Package (Narrative and Attachments A through D) one copy in Microsoft word format and one copy in PDF file format. Please save attachments with the file name of your organization and the name of the attachment. Electronic applications should be sent to Tamika Jacques, tjacques@masscec.com by the deadline below.

Application Checklist:

Please utilize the following checklist to ensure that all required materials are part of the Application prior to submission. It is the sole responsibility of the applicant to ensure that the Application is complete and properly submitted. At its discretion, MassCEC may request supplemental materials from the applicant and such materials must be submitted within ten (10) days of the request or the Application may be rejected without further review.

The following must be attached to the application:

- ✓ Application Narrative (6 page limit (single spaced), 12 font, Times New Roman)
- ✓ Attachment A: Authorized Applicant's Signature and Acceptance Form

- ✓ Attachment B: Application Summary Sheet
- ✓ Attachment C: Timeline for Proposed Plan
- ✓ Attachment D: Budget Sheet

The completed Application and all other documentation should be submitted to Tamika Jacques at tjacques@masscec.com. “2019 Clean Energy Activity Day” must appear in the email subject line.

The following attachments are provided below as reference to the applicant and are not to be included in a submitted application:

Attachment E: Final Report on “Clean Energy Activity Day”

Attachment F: Sample “Clean Energy Activity Day”

Attachment G: Statements from Past Applicants

VIII. SELECTION CRITERIA

Table 1: Selection Criteria

Criteria	Sub-Criteria
<p>Minimum Threshold</p>	<ul style="list-style-type: none"> • The application is complete and responsive to the Solicitation and Application requirements • Explanation of why this type of event is needed in applicants’ school; type of students that will benefit from this event (K-4) or (5-8) • Description of applicants’ ability to execute a “Clean Energy Activity Day” and the goals of the event • Experience in guiding elementary and middle school students to Clean Energy/STEM awareness • Proposed day is explained; also, how participants will be aware and understand the skills/education needed to prepare for secondary education, post-secondary or career paths in Clean Energy/STEM • The application includes all required attachments • The clarity, specificity, and consistency of the application are sufficient to be deemed credible

Criteria	Sub-Criteria
<p>Team Commitment and Qualifications</p>	<ul style="list-style-type: none"> • Applicants must identify clear and concise identification of team members who will oversee, develop and execute the “Clean Energy Activity Day” • The Program Coordinator for “Clean Energy Activity Day” must have experience working with elementary and middle school students and with Clean Energy/STEM curriculums • Team Members education, qualifications and experience are listed on resumes included as attachments • A clear description listed of employer(s) partners and other partners • Identification of why partners were chosen and the roles, expectations and responsibilities • The “Clean Energy Activity Day” Team should consist of up to three administrators (Program Coordinator and two additional staff members) who are located at applicant’s school with a minimum of 20 hours per week. • Note: if awarded, the event day team will also have a member from MassCEC as an advisor.
<p>Event Components and Detail</p>	<ul style="list-style-type: none"> • Track 1 or Track 2 Selected <ul style="list-style-type: none"> ➤ Monday – Friday for Track 1 (Students only) or ➤ Saturday for Track 2 (Students with parents or guardians) • Guest speaker selection and chosen sector topic that guest speaker will address • Description of event design and concept for “Clean Energy Activity Day”. Include a work coordination plan in chart form (not included in the narrative) that includes implementation plan. Activities in the chart should include dates and details of who will lead activities such as reach out to guest speakers, order equipment or model equipment, prizes, planned start and end dates for each activity and how success will be measured under each activity (see Attachment C) • Description of type of participant targeted (e.g., science, math, English, low-income, honor students) • Description of how concepts will be engaging for (K-4), (5-8) or parents/guardians (if applicable) • Description of proposed outcomes that students or parents will gain from participating in the “Clean Energy Activity Day” • Description of event space available for “Clean Energy Day”, AV equipment for projectors or microphones that may be used • Description of proposed equipment to provide a hands-on learning experience

Criteria	Sub-Criteria
	<ul style="list-style-type: none"> • Number of students or parents/legal guardians (if applicable) who participate in “Clean Energy Activity Day” • Inclusion of a timeline and implementation plan • Description and strategy of outreach plan to school, community and parents • Description of bags gift.
Budget	<ul style="list-style-type: none"> • Reasonableness of the budget relative to the activities.

XI. BUDGET

Total funding available for grants under this solicitation is \$100,000. MassCEC anticipates awarding up to ten (10) “Clean Energy Activity Day” events of not more than **\$8,000 per application from Track 1** or of not more than **\$10,000 per application from Track 2**. Awarded applicants will be paid in two installments. 50% of awarded funds will be distributed upon execution of grant agreement and 50% of funds will be awarded upon completion and final report of the “Clean Energy Activity Day” (see **Attachment E**). Budgets should be reasonable and demonstrate validity of costs for each proposed activity. Please note that food for snacks and lunch as well as equipment are allowable costs, but must be limited to \$1,000 in total. Event costs can include: planning hours for the Program Coordinator, stipends for business speakers, field trip expenses, buses and operational costs (*i.e.*, clean energy activity bags, *etc.*).

Please complete the budget sheet and attach a budget narrative of each line item to **Attachment D**.

Additional Funds: If an applicant is awarded, MassCEC will provide a STEM-related field trip for applicant’s students up to \$1500.00. Please include a brief description of the field trip and the cost. For example, last year, some students went to the Museum of Science. Please include a price quote from the applicant’s choice of field trip and bus company that will be used to provide transportation to choice of field trip. Choice of field trip and transportation funds are given as additional funds and not part of the applicant’s program funds. Please list transportation cost as a separate line item on **Attachment D**.

X. CONTACT INFORMATION FOR QUESTIONS

Questions concerning this Solicitation should be submitted in email to contact listed below. All inquiries should reference the Solicitation 2019-CEAD. MassCEC will post all questions and answers to on December 17, 2018. Only answers posted on the website should be treated as MassCEC’s official response to any question. The contact for questions is:

Tamika Jacques, ED.D.
 Director of Workforce Development
tjacques@masscec.com

XI. GENERAL REQUEST FOR PROPOSALS CONDITIONS

NOTICE OF PUBLIC DISCLOSURE

As a public entity, MassCEC is subject to Massachusetts' Public Records Law, codified at Chapter 66 of the Massachusetts General Laws. Thus, any documentary material, data, or other information received by MassCEC from an applicant is a public record subject to disclosure. Applicants shall not send MassCEC any confidential or sensitive information in response to this RFP.

DISCLAIMER & WAIVER AUTHORITY

This RFP does not commit MassCEC to award any funds, pay any costs incurred in preparing an application, or procure or contract for services or supplies. MassCEC reserves the right to accept or reject any or all applications received, waive minor irregularities in submittal requirements, modify the anticipated timeline, request modification of the application, negotiate with all qualified Applicants, cancel or modify the RFP in part or in its entirety, or change the application guidelines, when it is in its best interests.

This RFP has been distributed electronically using MassCEC's website. It is the responsibility of Applicants to check the website for any addenda or modifications to a RFP to which they intend to respond. MassCEC accepts no liability and will provide no accommodation to Applicants who submit an application based on an out-of-date RFP document.

CONTRACT REQUIREMENTS

Upon MassCEC's authorization to proceed with the proposal, MassCEC and the awarded applicant(s) will execute a contract which will set forth the respective roles and responsibilities of the parties.

ATTACHMENT A: AUTHORIZED APPLICANT'S SIGNATURE AND ACCEPTANCE FORM

Clean Energy Activity Day (the "RFP")

The undersigned is a duly authorized representative of the Applicant named below. The undersigned has read and understands the RFP requirements and acknowledges and confirms that the Applicant and each member of its team has read and understands the RFP Requirements. The undersigned acknowledges and agrees that all of the terms and conditions of the RFP are mandatory.

The undersigned and each Applicant and each member of its team acknowledges and agrees that (i) all materials submitted as part of the application are subject to disclosure under the Massachusetts Public Records Law, as explained in the RFP; (ii) that the Massachusetts Clean Energy Technology Center ("MassCEC") has no obligation, and retains the sole discretion to fund or choose not to fund the application set forth herein; and (iii) that MassCEC's receipt of the application does not imply any promise of funding at any time.

The undersigned and each member of the Applicant's team understands that, if the Application is selected by MassCEC pursuant to this RFP, the Applicant will execute and deliver an agreement to be provided by MassCEC that shall set forth the terms and conditions, together the respective roles and responsibilities of the Applicant, and each member of its team, and MassCEC, with respect to the project described in the RFP.

I certify that the statements made in this Application, including all attachments and exhibits, are true and correct.

Applicant: _____

(Printed Name of Applicant)

By: _____

(Signature of Applicant or Authorized Representative)

Title: _____

Date: _____

ATTACHMENT B

Application

Lead Applicant Information	
Primary Applicant – Organization	Partners (if any):
Program Applying for:	Applicant Taxpayer ID# and jurisdiction (e.g., “a Massachusetts corporation”)
Short Title of Project:	Total MassCEC Funding Amount Sought:
Total Project Cost:	City/ Town/Zip Code:
Mailing Street Address:	State:
Lead Applicant Point of Contact Information	
Primary Contact: Authorized to commit organization; notified upon decision of grant award	
Name:	Title:
Organization:	Phone:
Email Address:	Fax:
Mailing Street Address:	City/ Town:
State:	Zip +4 Code:
Project Manager: Contact over course of project	
Name:	Title:
Organization:	Phone:
Email Address:	Fax:
Mailing Street Address:	City/ Town:
State:	Zip +4 Code:
Other Collaborating Entities Contact Information (create more boxes if needed)	
Name:	Title:
Organization:	Phone:
Email Address:	Fax:
Mailing Street Address	City/ Town:
State:	Zip +4 Code:

ATTACHMENT C

Timeline for Proposed Plan

Timeline for Proposed Plan- Please identify each activity that you will engage in before, during and after “Clean Energy Activity Day”. If necessary, insert rows into the chart to capture all of the activities you will be undertaking.

Activities should include planning for the event (reaching out to businesses and guest speakers and ordering supplies for the event), finalizing the event day, and convening the Team who will lead “Clean Energy Activity Day”.

Activity	Lead Person Responsible (Name/Title)	Key Participants (Name/Title/Role)	Planned Start & End Dates	Desired Outcome/Product	How success will be measured?

If above schedule does not fully capture the nature of tasks associated with the event, please add additional detail in the form of a narrative. Add more boxes if necessary.

Please list the number of students and parents (if applicable) “Clean Energy Activity Day” will host.

	Number of Participants	
Students		
Parents (If selecting Track 2)		

ATTACHMENT D

Budget Sheet

This is a sample budget sheet that should be filled out in excel. The excel sheet to be used can be found on the same page as the RFP.

Cost Category				
I. Direct Labor			Amount to be reimbursed	Total Cost
<i>Name, Title, and Organization</i>	<i>Hourly Rate (\$/hr)</i>	<i>Anticipated Hours</i>	<i>MassCEC Cost</i>	<i>Total Event Cost</i>
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
Total Direct Labor			\$0.00	\$0.00
II. Subcontractors (including host)			Amount to be reimbursed	Total Cost
<i>Firm, Consultant Name, and Title</i>			<i>MassCEC Cost</i>	<i>Total Event Cost</i>
Total Subcontractors			\$0.00	\$0.00
III. Direct Materials & Costs			Amount to be reimbursed	Total Cost
<i>Item</i>			<i>MassCEC Cost</i>	<i>Total Event Cost</i>
Total Direct Materials & Costs			\$0.00	\$0.00
Total Cost Summary				
Total Event Costs				\$0.00
Total MassCEC Grant Request				\$0.00

ATTACHMENT E
Final Report of “Clean Energy Activity Day”
(Not to Exceed Four Pages)

Contents:

Description of “Clean Energy Activity Day”

Team who led the Day

Participant Data Information (Required)

- Race and gender of student participants
- Number of students who participated in “Clean Energy Activity Day”
- Number of students who participated from a Gateway City or low income community
- Number of female students who participated
- Number of minority students who participated
- Number of parents who participated in the Saturday event (if applicable)

Name of Guest Speakers

Explanation of Hands-on Learning Activity

Strengths of the Day

Challenges of the Day

Recommendations for future “Clean Energy Activity Day”

Conclusions

Appendix Samples (brochures, advertisements, etc.)

ATTACHMENT F

Sample “Clean Energy Activity Day”

Track 1

(Grades 5-8)

January – February 2018

Program Coordinator organizes team members, pre-planning meetings begin, reach out to business guest speakers, and research hands-on learning activity. “Clean Energy Activity Day” is scheduled for Wednesday, March 1, 2018. Team members meet once per week to finalize and discuss the components of the day (guest speakers, advertisement of day, hands-on learning activity, ordering of equipment, ordering of supplies, field trip organization if applicable, snacks and lunch supplies).

March 1, 2018

125 students are chosen to participate in “Clean Energy Day” (at least 63 students are female).

9am to 12:30pm Schedule

9:00am – Students gather and hear from 2 guest speakers who work in the Clean Energy Industry. Guest speakers focus on working in wind, explains his/her career path, and relates his/her career to math or science problems or curriculum that students are currently working on. Guest Speakers are engaging, aware of their audience and as an incentive are giving out small prizes to three students every 20 minutes if they can answer questions correctly based on their presentation.

10:30am – Students are separated (5th & 6th) (7th & 8th) and asked to think about the Guest Speakers’ comments and are each given a science wind kit to assemble. Students build their own wind turbine in order to learn about clean energy motors and generators (see picture below). This activity is led by three teachers (math and science) who are located at the school.

5th & 6th Grade

Students work on a hands-on learning experience together. Facilitator explains how the event relates to current math and science curriculum and how clean energy activities lead to economic stability and a sustainable career path for students.

7th & 8th Grade

Students work on a hands-on learning experience together. Facilitator explains how event relates to current math and science curriculum and how clean energy activities lead to economic stability and sustainable career path for students.

12:00 pm - Students are asked to discuss their findings and new learnings regarding clean energy/wind and how this can be applied to other instructions in math and science. Students discuss what type of camps they could attend and what type of track they should study in high-school and college.

12:30 pm - Event Ends – Students are provided with Clean Energy Gift Bags. Pizza lunch and ice-cream sponsored by “Clean Energy Activity Day” and are able to bring home their wind turbine.



(Science Wind Kit)

Sample Track 1 Budget

		Rate	Hours	Cost	Total
Labor					
	Program Coordinator	\$40.00 per hour	15	\$600.00	\$600.00
	Team Member 1	\$40.00 per hour	8	\$320.00	\$320.00
	Team Member 2	\$40.00 per hour	8	\$320.00	\$320.00
	Business Speaker 1	Stipend		\$100.00	\$100.00
	Business Speaker 2	Stipend		\$100.00	\$100.00
	Facilitator or Teacher who will instruct students and on Wind and facilitate the assembly of Wind Science Kit (prep included)	\$40.00 per hour (includes prep)/3 Facilitators or \$120.00 per facilitator		\$120.00 per Facilitator	\$360.00
Equipment /Supplies					
	Wind Turbine Science Kit	\$40.00 per kit	125 Students	\$5000.00	\$5,000.00
	Promotional Gift Bags	Bulk Rate		\$100.00	\$100.00
	Collateral Material (Information Clean Energy/STEM Camps, High-School Programs, Higher Education Programs)			\$300.00	\$300.00
	Prizes/Giveaways (Tickets to Museum of Science/Gift Cards)			\$300.00	\$300.00
	Pizza & Ice Cream			\$400.00	\$400.00

Total: \$7,900.00

Sample Clean Energy Activity Day

Track 2

Grades (K-4)

Program Coordinator organizes team members, pre-planning meetings begin, reach out to business guest speakers, and research hands-on learning activity. “Clean Energy Activity Day” is scheduled for Saturday, February 18, 2018. Team members meet once per week to finalize and discuss the components of the day (guest speakers, advertisement of day, hands-on learning activity, ordering of equipment, ordering of supplies, field trip organization if applicable, snacks and lunch supplies).

100 students are chosen to participate in “Clean Energy Day” (at least 50 students are female). 100 parents or legal guardians are chosen to participate with their child at “Clean Energy Day”.

9am to 1pm Schedule

9:00am - Students and Parents are provided with a continental breakfast and given an overview of the agenda for the next four hours.

9:30am to 10:30am - Students and parents hear from 2 guest speakers who work in the clean energy industry. Guest speakers are innovative and engaging with the K-4 students. Guest speakers focus on working in solar and wind and explain his/her career path and how it relates to math or science problems or curriculum that students are currently working on. Guest speakers are engaging, aware of their audience and as an incentive are giving out small prizes to three students every 20 minutes if they can answer questions correctly based on their presentation.

10:30am - Students and Parents are separated into two groups (K-2 with parent) (3rd – 4th Grade with parent)

Kindergarten, 1st & 2nd Grade

Students and Parents work on a hands-on learning activity together. Facilitator explains how the event relates to current math and science curriculum and how clean energy activities are economic and sustainable career paths for students. Students and Parents assemble a Solar Kit Educational Robot (Solar Windmill, Solar Airboat, Solar Plane) (See picture below)

3rd & 4th Grade

Students and parents work on a hands-on learning experience together. Facilitator explains how event relates to current math and science curriculum and how clean energy activities lead to economic stability and a sustainable career path for students. Students and parents assemble a Solar Kit Educational Robot (Solar Windmill, Solar Airboat, Solar Plane) (See picture below)

12:00pm - Students are asked to discuss their findings and new learnings regarding clean energy/solar and how this can be applied to other instruction in math and science. Students and parents discuss what type of camps they could attend and what type of track they could study in high-school and college.

12:30pm - Lunch Served/Clean Energy Gift Bags Distributed

Students are provided with Clean Energy Gift Bags that contain educational information on clean energy (coloring books and the reading book “Energy Makes Things Happen”). Pizza and ice-cream lunch provided and students are able to bring home Solar Kit Educational Robot.

Parents are provided with Clean Energy Bags that contain information on local, regional and statewide resources for students to be engaged in Clean Energy/STEM activities (STEM Camps/Libraries, Museums). Parents that stay for the whole “Clean Energy Activity Day” are given a survey to complete and when completed receives a \$25 gift card to a local grocery store.

In addition to the Solar Kit Educational Robots that were sent home with students, the elementary school has ordered an additional 120 Solar Educational Kits to use with future curriculum for other students who attend the elementary school.



Solar Kits

Sample Track 2 Budget

		Rate	Hours	Cost	Total
Labor					
	Program Coordinator	\$40.00 per hour	15	\$600.00	\$600.00
	Team Member 1	\$40.00 per hour	10	\$400.00	\$400.00
	Team Member 2	\$40.00 per hour	10	\$400.00	\$400.00
	Guest Business Speaker 1	Stipend		\$100.00	\$100.00
	Guest Business Speaker 2	Stipend		\$100.00	\$100.00
	Saturday Facilitator or Teacher who will instruct students and parents on Solar and facilitate the assembly of making Solar Kit Educational Robot	\$40.00 per hour (includes prep)/2 Facilitators	8	\$160.00 per Facilitator	\$320.00
Equipment/ Supplies					
	Solar Kit Educational Robot	\$15.00 per kit	100 Students	\$1,500.00	\$1,500.00
	Promotional Gift Bags	Bulk Rate		\$40.00	\$40.00
	Promotional Material to advertise to the Parents and students of the “Clean Energy Activity Day” to take place on February 18			\$100.00	\$100.00

	Promotional Material/Information Clean Energy/STEM Camps, High-School Programs, Higher Education Programs			\$200.00	\$200.00
	\$25 Gift Card for Parents (Completion of Survey)	\$25.00	100 Parents	\$2,500.00	\$2,500.00
	Reading Book "Energy Makes Things Happen"	\$8.00	100 Students	\$800.00	\$800.00
	Continental Breakfast Prizes/Giveaways (Tickets to Museum of Science/Gift Cards)				\$400.00
	Pizza & Ice Cream for all Participants				\$500.00
	Solar Educational Kits to Purchase. School will use them for future use with other students in Math & Science Curriculums	\$15.00	130 Kits		\$1,950.00
Total Cost "Clean Energy Activity Day"					\$9,910.00

ATTACHMENT G

The following are statements from teachers who participated in the 2017 Clean Energy Activity Day. These statements are meant to help your application as you think of how to structure your day:

- 91% of teachers responded they were “Very satisfied” with their 2017 Clean Energy Activity Day.

“We were very satisfied with our clean energy day. One factor that contributed to the success of the day was that the grant funding allowed us to purchase materials that we used to run the station activities. This is incredibly helpful when districts have limited STEM funding. The funding also provided stipends for the organizers to collaborate around which activities would best align with the 2016 Massachusetts Science, Technology and Engineering Frameworks and be grade-level appropriate. In addition, MassCEC went above and beyond our expectations by participating in our solar panel installation ribbon cutting, providing personalized shirts and bags and bringing a host of volunteers who worked with students throughout the day. Many participants have commented on the level of student engagement and suggested that we consider holding this as an annual event”.

- Teachers would make the following changes based on past experience:
 - ✓ The solar car build was too much for a half hour time slot. If another build is to be that complicated, the schedule needs to accommodate a bigger window, which might mean more stations in the rotation.
 - ✓ I would consider running it during the school day or trying to work with colleagues to cancel other afterschool activities. This is an unusually busy time of year for students after school. I would also try to find an activity kit of some kind to put in every students swag bag.
 - ✓ Given the chance, I would hold the event a little later in the year and have a rain date in place to ensure we had conducive weather conditions. I would also consider spreading the event out so we did not have so many students/stations in the gym at once. I would also consider adding other types of clean energy such as wind and geothermal. Finally, I would suggest reaching out to vendors and community partners to set up stations, including some that show the environmental connection to renewable vs. nonrenewable energy.
 - ✓ I would not have ordered "Happy Hopping Frog" OWL MSK672 Build It Yourself Educational Robot Mini Solar Kit - These frogs had very small pieces that did not fit together very well
 - ✓ Included students in the planning activities

