



STUDENT CLIMATE CHALLENGE

STUDENT GUIDE

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Atlantic City Electric and the Exelon Foundation are proud to support the New Jersey Student Climate Challenge as part of their commitment to powering a cleaner and brighter future for customers and communities in New Jersey.



1. New Jersey Student Climate Challenge Overview

The New Jersey Student Climate Challenge highlights the role youth can play in addressing the climate crisis. The initiative builds on New Jersey’s work to increase climate literacy in young people across the state, including its first-in-the-nation effort to incorporate climate change education across all K-12 state academic standards. It will provide support and recognition to New Jersey public school students in grade 6 through 12 as they implement local projects to address the climate crisis. The Challenge is administered by Sustainable Jersey and the Drumthwacket Foundation.

The Challenge is designed for students to participate through their school with a teacher or club advisor as a mentor so their projects can be linked to their school learning experiences. Students are encouraged to team up and complete a school or community project to address a cause or impact of climate change. The team then creates a short digital story video to highlight what they have accomplished. To support and inspire student action, educational sessions will be offered during January and February 2022. The sessions will spotlight local impacts of climate change and strategies to address them, as well as success stories about what students are already accomplishing.

Suggestions for project planning and practical digital story making tips are provided in this student guide, as well as resources on topics such as action project brainstorming, video techniques, and completing the Challenge submission form. Your team should brainstorm and research a climate action project that is meaningful to you and your community. Starting with the planning stage, moving to implementation, and through the evaluation phases of the climate action project, all actions should be documented to potentially be included in the digital story video.

The process of creating a digital story about your action project empowers you and your team members to tell your own stories of climate action: your perceived successes, challenges, and agency throughout the project. By the end of the project, we hope that you will be able to communicate to others why this is an important issue to you and, more critically, what you are doing to take action with your peers.

2. Tips for Getting Started

- Review the [Challenge Official Rules](#).
- Please become familiar with the scoring rubric found later in this guide. Through your participation in the Climate Challenge, your team will engage project-based learning experience to brainstorm, research, design, and implement a climate action project of your choosing.
- You will need to document your progress through these activities to create a video story to share more information about the chosen climate action project and how that action will help in combatting climate change.



- Read and become familiar with steps required for your projects. Entry deadlines and submission information can be found in this guide and on the [Sustainable Jersey for Schools](#) website.
- Climate Challenge entries must be submitted online via a [Google Submission Form](#). View a PDF copy of the form [here](#). The form requires you to provide a project summary and describe how the project is linked to climate change solutions. Digital stories should include video clips or pictures of team members participating in the action project to document its completion.

3. Climate Challenge Eligible Student Projects and Student Teams

The goal of the Challenge is to encourage you to take action on climate change. Each student team is expected to complete a specific project that addresses a cause or impact of climate change. The projects can be school or community based. All projects must culminate in a tangible outcome. This can include:

- A physical change to the environment
- A reduction in a factor that contributes to climate change
- Increased awareness of the climate crisis among a target audience
- Civic engagement in local or state policy making related to climate change
- Presentation of research findings on a local climate related issue that informs decisionmakers
- Develop a proposal and apply for a grant to complete a school or community project

Questions regarding eligible student projects can be emailed to:

njstudentclimatechallenge@sustainablejersey.com

Student Teams

Each student team must have a Climate Challenge registered teacher mentor. It is strongly recommended that teams consist of no more than 12 students, with the ideal number of students being around 5-6 per team. Teams from the same club or class section can work on similar projects but each team must produce a unique outcome. For example, if two teams are interested in doing tree planting projects, the plantings must take place at two separate locations. Or if two teams want to do an education and outreach campaign, they should focus on two different target audiences.

The Challenge entries must be submitted online using the [Challenge Submission Form](#) by April 20, 2022 at 11:59 pm. See the Submission Form section of this document for more information. To view a PDF version on the Challenge Submission Form click [here](#).

4. Resources to Support Action Project Planning and Implementation

There is a wide range of resources to help your team decide on a specific project to pursue. A simple google search of a topic will return a wealth of resources. Part of the fun of completing the project



is doing the internet search and tracking down exactly what your team needs based on what YOU and YOUR teammates are interested in tackling related to climate change.

Once your team has an idea of which dimension of climate change it wants to address, it might be helpful to reach out to local organizations such as the municipal or school green team, environmental commission, shade tree commission, watershed association, League of Women Voters, Pinelands Preservation Alliance, Rutgers Cooperative Extension, etc. for ideas. These groups often have a need for volunteers to complete projects that you might be interested in helping to complete. Rutgers University extension services and a diversity of non-profits publish how-to-guides or have outreach coordinators that would be willing to coach students through their projects. All teams are encouraged to explore community partnerships.

The [Sustainable Jersey](#) and [Sustainable Jersey for Schools](#) certification programs have identified specific actions that address climate change and provide guidance on what to do and how to do it. The student team may not need to complete all the action requirements but rather select a component of the action to work on.

Your school **does not** have to be participating in the Sustainable Jersey for Schools program to access the resources. However, if your school or the municipality is participating, your project could help earn them points in the program. Teams selecting Sustainable Jersey actions for their projects should reach out to the local contacts. To learn how to find out if you school or municipality is certified or participating in Sustainable Jersey and obtain contact information, click on the links below to view short video instructions:

[Sustainable Jersey for Schools](#)

[Sustainable Jersey Municipal Program](#)

Climate-Related Sustainable Jersey for Schools Actions

The following table is a collection of Sustainable Jersey for Schools actions that link to climate change. These actions could serve as inspiration for student team action projects. More information about each action can be found at the links provided.

Action	Description and/or Goal of Action
<i>Climate Mitigation & Renewable Energy</i>	
School Carbon Footprint	A School Carbon Footprint measures the amount of greenhouse gas (GHG) emissions produced by a school in a given year. Completing a School Carbon Footprint requires an accounting-like inventory of all the sources of GHG in your school buildings, fleet, and operations.
<i>Energy Efficiency</i>	
Behavior-Based Energy Conservation Programs	The goal of this action is to spur activity among students – and the wider school community – that promotes energy savings. Behavior-based conservation programs have been shown to impact school culture through an increased awareness of energy use, and to provide significant and long-term energy savings.



<i>Food & Nutrition</i>	
Promote Locally Grown Foods	The goal of this action is to support the farm to school movement by encouraging schools to source more foods locally and provide complementary educational activities to students that emphasize food, farming, and nutrition.
School Gardens	School gardens serve as living classrooms that teach lessons as simple as "where our food comes from" to complex lessons on ecology, resource management, nutrition, and healthy lifestyles. The goal of this action is to encourage and support the creation and maintenance of sustainable food-producing school gardens.
<i>Healthy School Environments</i>	
Anti-Idling Education & Enforcement	A motor vehicle is idling when the engine is turned on, but the vehicle is not in motion. A great deal of idling occurs at schools, where buses and cars line up to drop off and pick up children. Stopping unnecessary vehicle idling is a simple way to contribute to improved air quality around schools.
<i>School Grounds</i>	
Green Infrastructure Assessment & Plan	Stormwater runoff, if not controlled properly, has a major negative impact on water quality in local waterways and can contribute to flooding. There are often opportunities to reduce these impacts on-site by retrofitting school facilities with green infrastructure (such as rain gardens, bioswales and rain barrels) to capture and treat stormwater runoff.
Green Infrastructure Installation	School campuses contain many impervious surfaces, including buildings, parking, access roads, and paved playgrounds which can lead to flooding from stormwater runoff. With this action, schools can install green infrastructure on their grounds to capture and treat stormwater.
<i>Student & Community Outreach</i>	
Community Education & Outreach	Schools take action to educate the community about sustainability issues and about specific programs that encourage sustainable practices.
Civic & Stewardship Volunteer Initiatives	Civic and Stewardship Initiatives directly connect the school with its surrounding environment by providing opportunities for students to participate in projects with community-based organizations, thereby gaining real-world learning experience with a broad realm of sustainability issues, from land and water stewardship to socio-economic stewardship.
Green Challenges	The green challenge action involves asking people to pledge to make a specific change in their lives or in their behavior towards greater sustainability. The program educates participants on the sustainability issues addressed by the challenge and instructs them on how to participate; it documents participation and offers resources for success.
Green Fair	A green fair is a community-wide event that educates and encourages people of all ages to adopt a more sustainable lifestyle. Green fairs allow participants to visualize how their seemingly small individual efforts can make a huge difference in their community.



'Green' Your Green Fair or School Event	Schools incorporate sustainable or "green" features to the running of their Green Fairs or other larger school events such as athletic events, dances, multiple classroom parties, or commencement.
<i>Student Safety</i>	
School Travel Plan for Walking and Biking	A Safe Routes to School Travel Plan maps out how to improve pedestrian and bicycle travel to and from school to increase the number of students who walk and bike to school and to improve safety. It identifies: (1) where students currently walk and bike; (2) where students would walk and bike if they could; and (3) what changes need to be made so that students can and will walk and bike to school.
<i>Waste Management & Recycling</i>	
Waste Audit	This action requires that the school or district complete a waste audit: an assessment of the school's waste in terms of quantity and origin.
Document Recycling Rates	The recycling rate is a measure of how much of the school's waste is being recycled and will require at least one year of waste disposal and recycling data.
Food Waste Management	A school may choose to add the recycling of cafeteria and lunchroom food waste to its recycling program. Recycling of food waste in a school can serve as a valuable lesson for students on making compost, improving soil nutrients for plant growth, and diverting food waste from landfills.
Materials Reuse	A Materials Reuse Program connects those wishing to discard unnecessary or unwanted items within their school with others who are looking for used items in good condition. Materials Reuse Programs are valuable to the environment as they keep many materials from being disposed of in landfills and incinerators.
Recycling Non-Mandated Materials	This action implements recycling initiatives that target materials that are not designated as mandatory recyclable items. School initiatives to collect non-mandated materials can include but are not limited to: Recycling milk cartons; Recycling/reusing old toys; Recycling crayons/markers; Plastic bag/film collection; Battery/ink toner recycling.

Climate-Related Sustainable Jersey Municipal Actions

Much like the climate-related Sustainable Jersey for Schools actions listed above, there are also many municipal or community-based actions that could act as great climate action projects. Investigate the links in the table below for more information about additional Sustainable Jersey actions. A student team does not need to complete all the action requirements but rather select a component of the action to work on.

Action Category	Links to Sustainable Jersey Actions	
Animals in the Community	Wildlife Interaction Plan	
Community Partnership & Outreach	Community Education & Outreach	Green Challenges & Community Programs



Emergency Management & Resiliency	Community Wildfire Protection Plans	Heat Island Assessment
	Vulnerable Populations Identification for Emergencies	
Energy	Commercial Energy Efficiency Outreach	Residential Energy Efficiency Outreach
	Make Your Town Solar Friendly	Make Your Town EV Friendly
	Municipally Supported Community Solar	Purchase Alternative Fuel Vehicles
	Transportation Fleet Inventory	Public EV Charging Station
	Wind Ordinance	
Food	Community Gardens	Buy Fresh, Buy Local Programs
	Farmers Markets	Making Farmers Markets Accessible
Green Design	Green Building Education	
Health & Wellness	Anti-Idling Education & Enforcement Program	Safe Routes to School
Land Use & Transportation	Bicycle and Pedestrian Audits	Bicycle and/or Pedestrian Plan
	Bicycle and/or Pedestrian Improvement Projects	Green Infrastructure Planning
	Green Infrastructure Implementation	Smart Workplaces
	Sustainable Land Use Pledge	
Local Economies	Green Business Recognition Program	Buy Local Campaign
Natural Resources	Tree Hazard Inventory	Tree Protection Ordinance
	Tree Planting Programs	Water Conservation Education Program
	Water Conservation Ordinance	
Operations & Maintenance	Adopt a Green Purchasing Program by Ordinance or Resolution	Efficient Landscape Design
	Minimize Water Consumption	Recycled Materials and Composting
Sustainability and Climate Planning	Municipal Carbon Footprint	Community Carbon Footprint
	Climate Action Plan	Community Asset Mapping
Waste Management	Recycling and Waste Reduction Education and Compliance	Recycling Food Waste
	Recycling Household Hazardous Waste	Non-Mandated Materials Recycling
	Backyard Composting Program	Grass - Cut It and Leave It Program
	Materials Reuse Program	Waste Audit of Municipal Buildings and Schools



Additional Project Resources

Below is one possible Action Plan template. The A.C.T.I.O.N plan from Young Voices for the Planet provides a framework for students to design and implement their own projects.

A	ASSESS and ANALYZE what local issues most concern them (Find your passion)
C	COLLABORATE with fellow students, friends, families, teachers, school administrators, and community members to brainstorm with them about how to address the issue (Find your team)
I	Create a TIMETABLE to plan out steps towards their goal
I	IDENTIFY who they can talk to for assistance and enlist as mentors
O	ORGANIZE their thoughts. Organize meetings. Make a list of goals and action steps necessary to achieve their vision (Find your power)
N	Share the NEWS with school media, social media, and local and national news outlets. Celebrate success by sharing and engaging others in their project

Additional Young Voices for the Planet films series can be found at the following link:

<https://www.youngvoicesfortheplanet.com/>

5. Resources to Support Digital Story Video Production

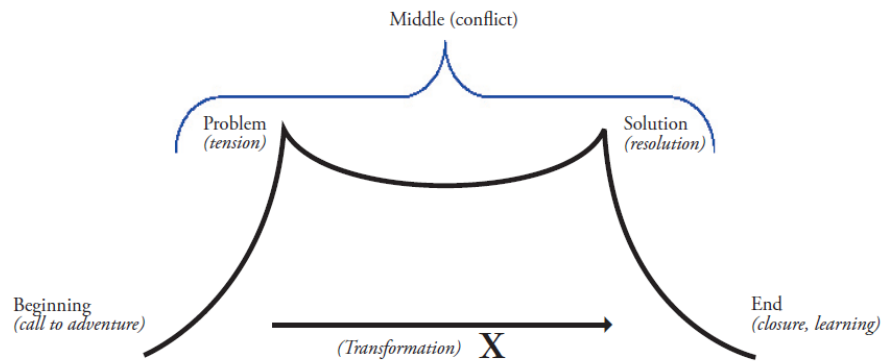
You are likely familiar with creating and viewing videos in our technology-dependent world. What sets a digital story apart from other videos is the personal storytelling aspect that shares with the viewer the narrative behind the video topic. Understanding these differences is important and additional guidance can be found in the [Digital Storytelling Guide](#). The Guide lays out the three C's of digital storytelling:

*“New technology tools allow us to **connect, communicate, and collaborate** easily with others around the world. Stories are all about these three C's and lend themselves naturally to create a bridge between teaching and integrating technology. Digital Storytelling is a tool that can support teaching and learning in any subject area.*

1. We **connect** on an emotional level with people and events in stories and we **connect** them to experiences in our own lives.
2. Stories let us **communicate** our perspective and perception.
3. Stories are usually a **collaborative** effort of stories' characters, their actions and points of view.”

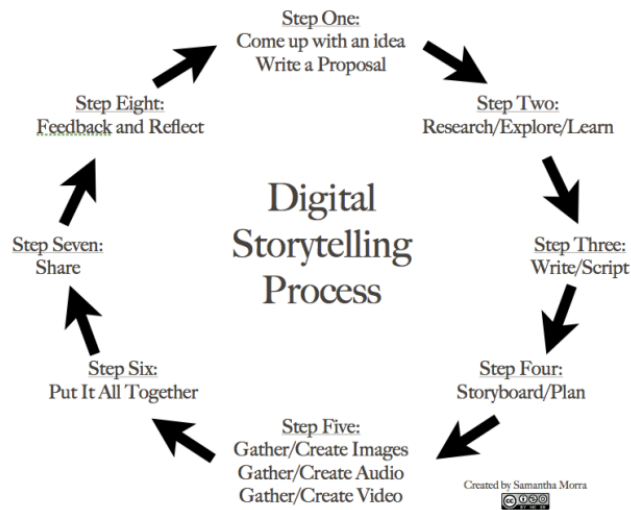
Key components of any digital story are the storytelling elements and the plot consisting of a beginning, a problem, a conflict, a solution/resolution, and an ending. It is often helpful to think about a digital story visually:





Thinking about digital stories in this way lends itself directly to the creation of a digital story around a climate action project for the Climate Challenge. You can share information about the climate change impact/issue chosen and why it was problematic for your community. This leads into a discussion of the action project design and implementation, along with any challenges that were experienced by your team. The completion of the project correlates to the resolution and closure of the digital story where you can share additional insights learned through this process.

In [8 Steps to Great Digital Storytelling](#), Samantha Morra provides a great overview of the digital storytelling process, as shown in the graphic below. Each of the steps is described in more detail in the article which should be helpful to both those just starting to explore digital storytelling.



For the Climate Challenge, the digital story video should be 3 to 5 minutes in length. It should highlight the action project completed and reflect on climate change and its impacts through your team members' eyes. Try to "show" rather than "tell" as much as possible—it is more exciting to see visual representations of your work rather than someone just talking into the camera.

VIDEO REQUIREMENTS:



- Save as .mp4, .mov, or .avi file
- Do not include copyrighted music. Free music is available at <https://www.bensound.com>.

A signed [Climate Challenge Digital Story Video Student Consent Form and Release](#) from each student team member is required. **The completed forms from each student team member should be combined into a single file and uploaded into the [Challenge Submission Form](#).**

EASY WAYS TO MAKE A VIDEO:

- Use your cellphone and keep it casual (please use landscape/horizontal recording format)
- Create an online meeting and record the “meeting”
- Create a PowerPoint presentation with narration and export it as a video

FREE VIDEO EDITING SOFTWARE:

- Lightworks (more advanced), VideoPad (great for beginners) and Movie Maker Online (use in browser)
- iMovie (Video: [iMovie Tutorial for Beginners](#) 11 minutes)
- [Animoto](#) is a way to create videos without the use of editing software

Edutopia has put together a [curated list](#) of video tutorials to help people get started with filmmaking. There are tons of great tips on everything from no budget filmmaking gear to editing video, from storyboarding to planning camera angles.

Capturing live-action video on phones or tablets is encouraged, but you can also draw pictures or diagrams, or use animation tools to share their story. Online tools to assist with video creation abound, with new platforms being introduced frequently, but here is an [annotated list](#) describing (mostly all free) resources to help create and use video. Some examples of student-created digital stories using these alternative online tools include:

- Speed drawings - <https://youtu.be/U01jDsg2mLY>
- Drawings - <https://youtu.be/70u1w5kGbYg>
- Animation using an online tool - <https://youtu.be/5e4uKbXUGkM>
- Stop motion with Legos - <https://youtu.be/K0RvbAWU8PM>

The student digital stories shared above come from the Green Ninja Film Festival project. Green Ninja project hosts an annual student film festival around student made videos about their environmental action projects. Additional sample student created videos can be found on this [YouTube playlist](#).

Young Voices for the Planet and Lens on Climate Change are two more organizations that offer resources around climate and environmental filmmaking. The Young Voices for the Planet [films](#) show how youth voices can be heard to spearhead meaningful action. Seeing what others have accomplished can inspire and empower you and your team members to take your own action. The Lens on Climate Change program guides students through creating documentary films to assist with



understanding the science behind climate change. A video library of sample student videos and curricular resources can be found at their [website](#).

6. Submission Requirements and Form

To enter the Climate Challenge, each student team must complete a [Submission Form](#) by 11:59pm on **Friday, April 20, 2021**. Please see the [Official Challenge Rules](#) document for additional details on the Challenge. To view a PDF copy of the Submission Form click [here](#). **The student completing the submission form will need to sign into a Google account to complete the required file uploads. Google accounts are free, so one can be easily made for the purposes of completing the form.**

The form requests the following information:

Section 1 – Contact Information

- Teacher or Club Advisor Name
- Teacher or Club Advisor Email
- School District Name
- School Name
- School Social Media (Facebook Account, Twitter Handle, Instagram Account Name)
- Local News Outlets (TapInto, etc.)
- Student Team Name
- Number of Team Members
- Grade Level of Student Team Members (Middle or High School)
- Student Team Members' Name, Grade, and Student and Parent Email Addresses. Please provide this information using the [Team Roster template](#).

Section 2 – Project Summary Information

- Project Summary – Provide a project title and a brief project summary. The summary should provide a concise synopsis of the action project your team completed. This description may be used in program reports and communication materials. **(50-word limit)**
- Science Explanation – Describe how the action project is linked to climate change solutions. Include the causes or impacts of climate change the project is addressing and the tangible outcome of the project. Teams will be encouraged to do background research to make sure the science is clear and correct for the intended project. **(250-word limit)**
- Key Project Components – Summarize the following **(500-word limit)**
 - Project goals
 - Inspiration for the chosen project
 - The steps taken to complete the project
 - How the project will positively impact your school or community



- Challenges encountered in completing the project and how those obstacles were overcome, or why they persist
- Involvement of community partners

Section 3 – Video Details and File Upload

- Digital Story Title (**10-word limit**)
- Running time (min, sec)
- Signed [Climate Challenge Digital Story Video Student Consent Form and Release](#) forms (one form per student combined into a single file).
- Video File Upload – The video file can be uploaded into the submission form or a link to the video can be provided. THE LINK MUST ALLOW THE FILE TO BE DOWNLOADED BY ANYONE.

Note: The student completing the submission form will need to sign into a Google account to upload the video. Google accounts are free, so one can be easily made for the purposes of completing the video upload.

7. Submission Review Process

Each entry will be reviewed and evaluated by a panel of judges that includes educators and representatives from non-profits, state agencies, and the partner organizations. Entries will be placed in either a Middle School or High School category. Please see the [Official Challenge Rules](#) for additional Challenge details. All entries will be independently scored by the judges using the following scoring rubric.

All entries will be independently scored by the judges using the following scoring rubric.

Climate Challenge Scoring Rubric

Points	4	3	2	1	Total
Video Content					/12
Storytelling: Creative Elements	The video communicates to the audience in a creative way. It is interesting and engaging, and its purpose is clear.	The story is creative and has several interesting and engaging elements with a set purpose.	The story is generic and has few interesting or engaging elements related to the purpose of the video.	The story is difficult to follow or boring. The purpose of the video is unclear.	/4



Core Science Ideas and Crosscutting Concept	The project clearly addresses a human impact on the environment; the cause-and-effect relationship (CCC-2) between human activity and climate change (ESS3.C) is accurately described and supported by evidence.	The project clearly addresses a human impact on the environment (ESS3.C); the cause-and-effect relationship (CCC-2) between human activity and climate change is described but not fully supported by evidence.	The project addresses a human impact on the environment but fails to describe the cause-and-effect relationship between human activity and climate change.	The tie to human impact is inadequate or missing entirely from the project.	/4
Solutions	The action project focuses on solutions that are innovative, practical, and may be implemented easily.	The action project includes solutions that are mostly practical and may be innovative.	The solutions suggested by the action project are impractical or difficult to implement.	There are no solutions given in the video, nor through the action project.	/4
Application					/8
Written Science Explanation	Climate science written descriptions—the cause-and-effect relationship between human activity and climate change—are accurate, well described, and clearly communicated. The science is closely related to the video.	Most climate science descriptions are accurate, well described, and clearly communicated. The science is related to the video.	Most climate science descriptions are vague or contain inaccuracies and explanations are confusing. The science may be only tangentially related to the video.	Climate science descriptions are missing or inaccurate. The science may be unrelated to the video.	/4
Written Project Components	The written project components section is descriptive and includes insightful, well described, and thoroughly detailed information about the design and completion of the action project.	The project components section is well described and has detailed information about the action project.	The project components section is included, but minimally addressed and/or without sufficient detail to fully describe the action project.	The project components section is incomplete or missing. Limited, or no additional information about the action project was provided.	/4
Total					/20

8. Challenge Awards

Winners will be notified in May 2022. The student teams and their teachers will be recognized at an awards ceremony hosted by the Drumthwacket Foundation with New Jersey Governor and First Lady in June 2020.

Schools with winning submissions will receive a grant to support their climate education initiatives.

- 1st Place: \$2,500 school grant
- 2nd Place: \$1,000 school grant
- 3rd Place: \$500 school grant

Students will receive an awards certificate and a commemorative gift.

9. Questions?



Email questions related to the Climate Challenge including the Challenge rules, submission requirements, deadlines, project eligibility requirements, or local organizations that could be a resource for a specific student project to:

njstudentclimatechallenge@sustainablejersey.com.

New Jersey Student Climate Challenge Program Partners

About Drumthwacket Foundation:

The Drumthwacket Foundation is a 501c3 non-profit, non-partisan organization. Its mission is to inspire pride and enhance civic awareness for all New Jerseyans by restoring Drumthwacket, a nationally landmarked historic site and the official residence of NJ Governors, and by educational and cultural activities that recognize the rich diversity and ongoing contributions of New Jersey's communities and its residents.

About Atlantic City Electric:

Atlantic City Electric is a unit of Exelon Corporation (Nasdaq: EXC), the nation's leading energy provider, with approximately 10 million customers. Atlantic City Electric provides safe and reliable energy service to approximately 560,000 customers in southern New Jersey.

About the Exelon Foundation:

The Exelon Foundation is an independent, nonprofit organization funded solely by Exelon Corporation through shareholder dollars. The mission of the Foundation is to encourage respect for the environment, support innovative STEM education programs and strengthen the social and economic fabric of the community by providing a match to Exelon employee contributions.

About Sustainable Jersey for Schools

Sustainable Jersey for Schools is a certification program for public schools in New Jersey. It provides tools, training, and financial incentives to support and reward schools as they pursue sustainability programs. To date, 374 school districts and 1,031 schools are participating in the program. Sustainable Jersey for Schools has awarded over \$2.7 million in grants to schools and school districts. Follow Sustainable Jersey for Schools on Twitter @SJ_schools.

