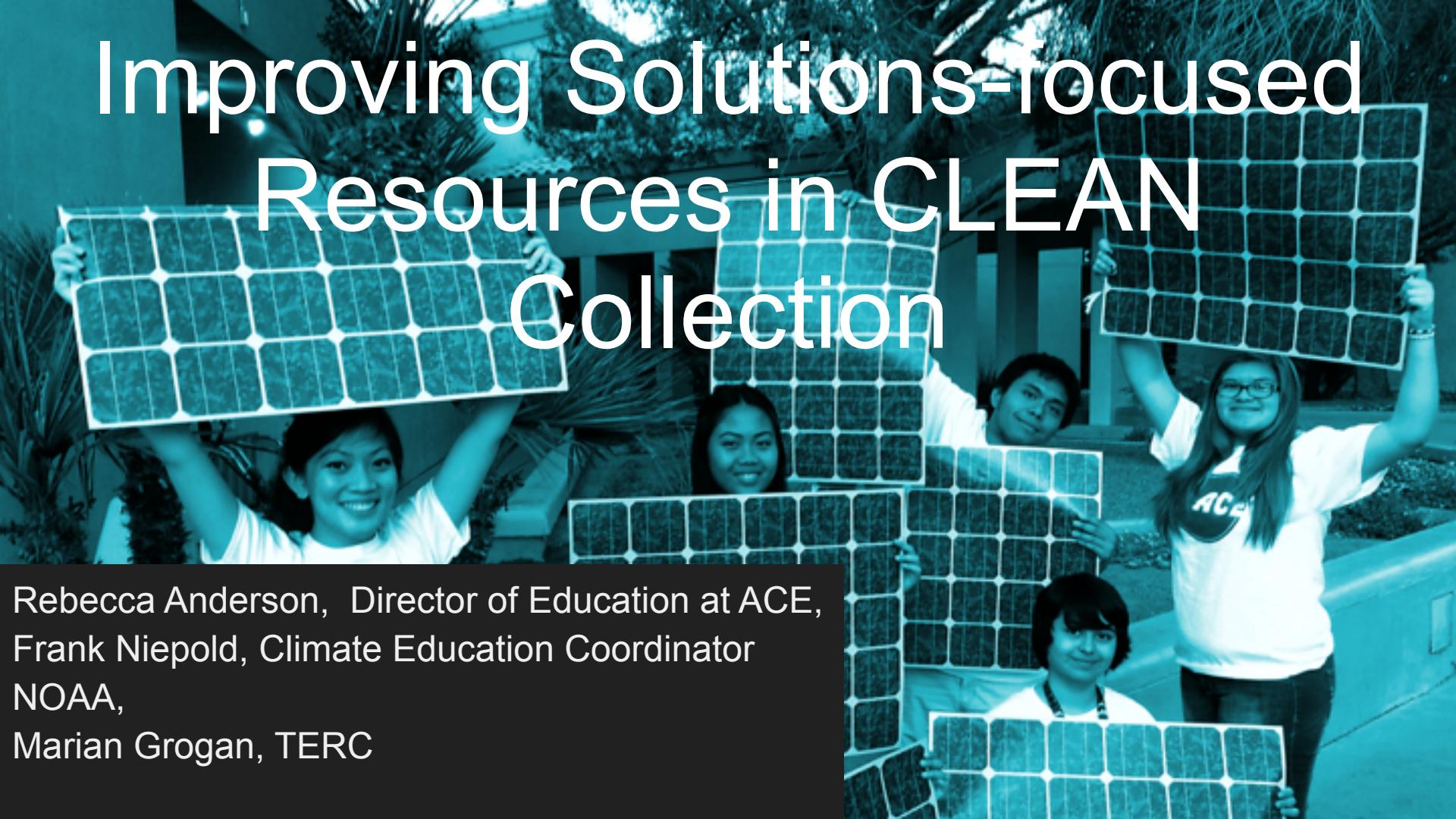


Improving Solutions-focused Resources in CLEAN Collection

A photograph of six people, three men and three women, standing outdoors and holding up large solar panels in front of them. They are all smiling and appear to be part of a team or organization, as indicated by their matching white t-shirts with a logo on the left chest. The background shows some greenery and a building, suggesting an educational or research facility.

Rebecca Anderson, Director of Education at ACE,
Frank Niepold, Climate Education Coordinator
NOAA,
Marian Grogan, TERC



- Lay out reason for topic: Frank / Reb
- Explain what resources we're looking for (scope): Frank / Reb
 - Disclosure that not all resources (eg, NOAA) make it into CLEAN, simply because they don't meet all aspects of the CLEAN set of criteria.
- Criteria for resources for inclusion in CLEAN: Marian
 - Reminder of maintenance review process -- every resource is reexamined at least every 3 years. Several resources archived during NGSS tagging process.
- How to submit for review to collection: Marian
- Facilitate discussion / questions from participants:

GUIDING PRINCIPLE FOR INFORMED CLIMATE DECISIONS:

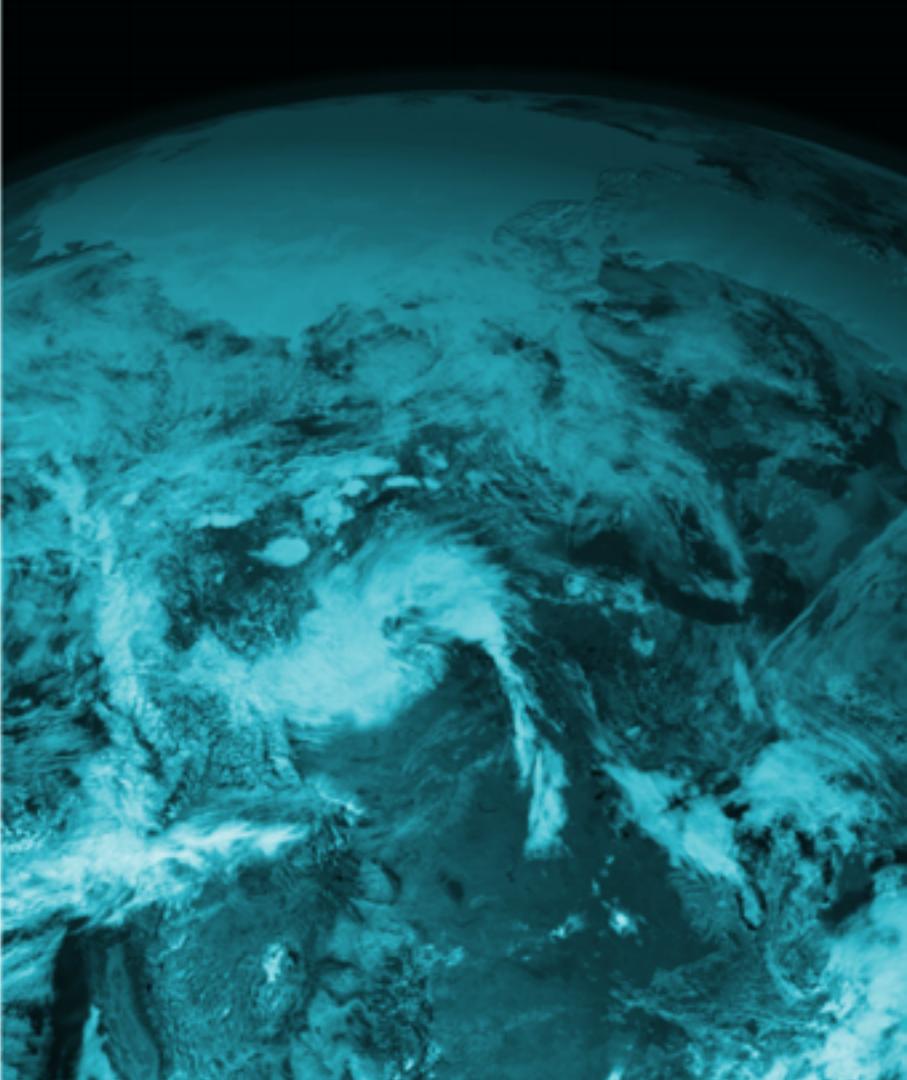
Humans can take actions to reduce climate change and its impacts.

- A. Climate information can be used to reduce vulnerabilities or enhance the resilience of communities and ecosystems affected by climate change. Continuing to improve scientific understanding of the climate system and the quality of reports to policy and decision-makers is crucial.

- B. Reducing human vulnerability to the impacts of climate change depends not only upon our ability to understand climate science, but also upon our ability to integrate that knowledge into human society. Decisions that involve Earth's climate must be made with an understanding of the complex inter-connections among the physical and biological components of the Earth system as well as the consequences of such decisions on social, economic, and cultural systems.

- C. The impacts of climate change may affect the security of nations. Reduced availability of water, food, and land can lead to competition and conflict among humans, potentially resulting in large groups of climate refugees.

- D. Humans may be able to mitigate climate change



D. Humans may be able to mitigate climate change or lessen its severity by reducing greenhouse gas concentrations through processes that move carbon out of the atmosphere or reduce greenhouse gas emissions.



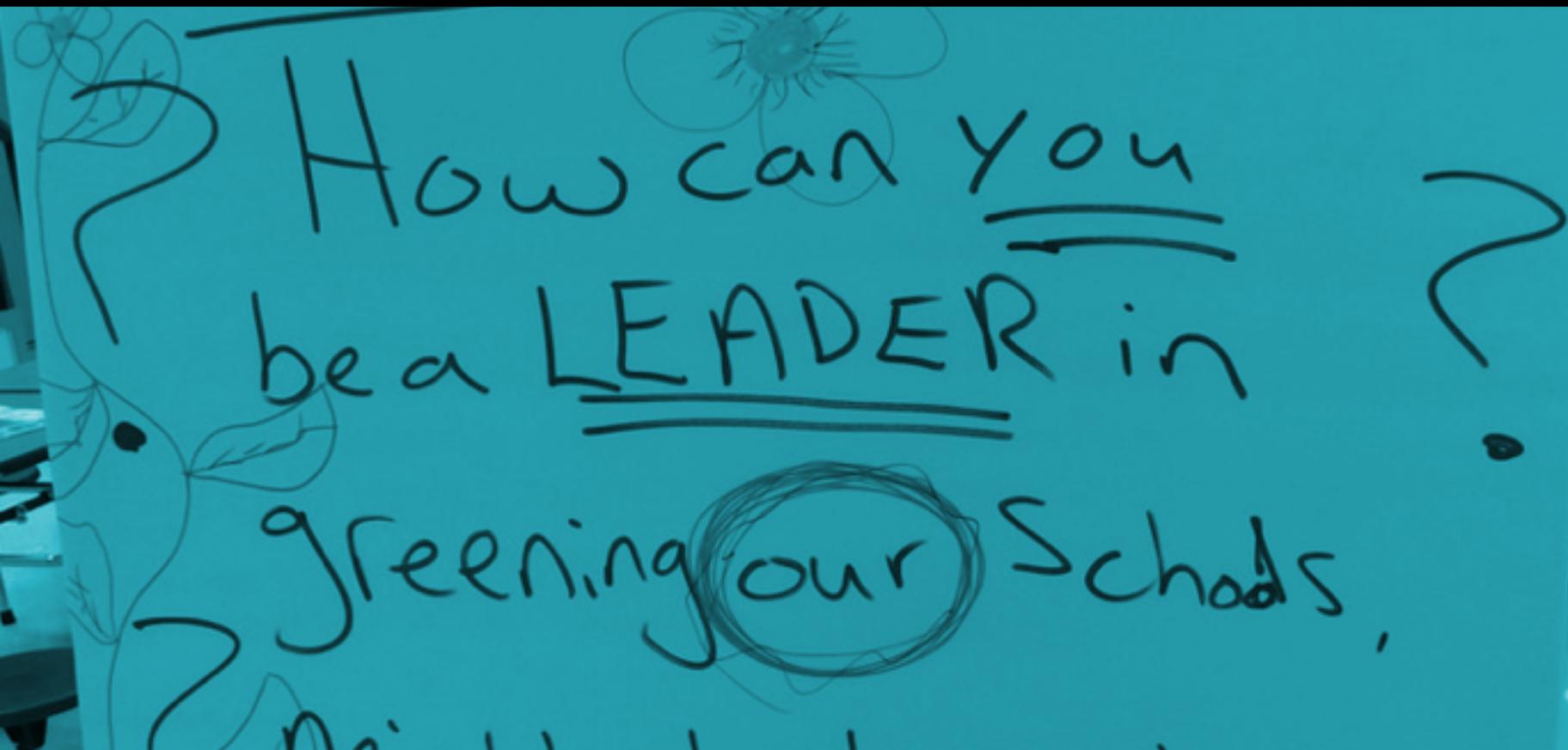
E. a combination of strategies is needed to reduce greenhouse gas emissions.





F. Humans can adapt to climate change by reducing their vulnerability to its impacts.

G. Actions taken by individuals, communities, states, and countries all influence climate.



Climate and Energy Topics Analysis

showing only **Human Responses to Climate** [Show all Climate and Energy Topics](#)

[Activity 44 matches](#)

[Visualization 14 matches](#)

[Video 48 matches](#)

In this set, here is how the second level looks:

Human Responses to Climate

[39 matches](#) General/Other [Mitigation Strategies 74 matches](#)

[Adaptation Strategies 15 matches](#)

[Risk Management 3 matches](#)

[Personal Responsibility 27 matches](#)

Climate and Energy Topics Analysis

Another way to search the collection is to use the faceted search terms: Climate and Energy Topics showing only "Human Responses to Climate" and the Climate Literacy Principles showing only "Humans can take action:"

Humans can take action

[18 matches](#) General/Other [GP a Climate science improves informed policy and decision-making](#)
[6 matches](#)

[GP b Reducing human vulnerability to and impacts on climate requires multi-disciplinary, integrated understanding](#) 8 matches

[GP c Climate change affects national security](#) 2 matches

[GP d Greenhouse gas reduction and carbon dioxide sequestration to mitigate climate change](#) 18 matches

[GP e Strategies to reduce greenhouse gas emission \(energy conservation, renewable energies, change in energy use\)](#) 49 matches

[GP f Strategies of human adaptation to climate change](#) 13 matches

[GP g Actions taken by different levels of society can mitigate climate change and increase preparedness for current and future generations](#) 54 matches

Climate and Energy Topics Analysis

Engineering Design (NGSS) ETS

[Middle School](#) > Engineering, Technology, and Applications of Science (MS-ETS): [22 matches](#)

Resource Type

[Activity 14 matches](#)

[Short Demonstration/Experiment 1 match](#)

[Visualization 6 matches](#)

[Video 1 match](#)

[High School](#) > Engineering, Technology, and Applications of Science (HS-ETS): [73 matches](#)

Resource Type

[Activity 26 matches](#)

[Short Demonstration/Experiment 4 matches](#)

[Visualization 9 matches](#)

[Video 34 matches](#)

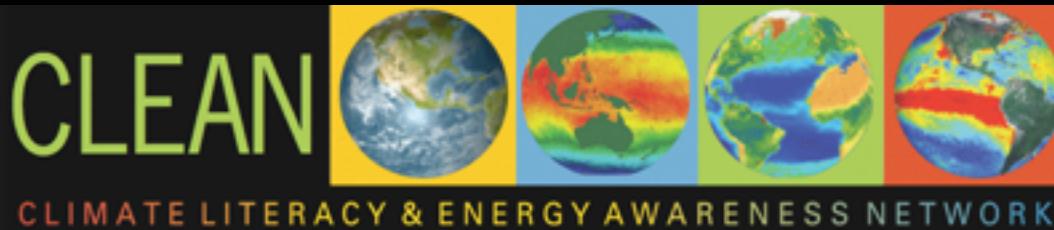
Guidelines for submission to CLEAN for review

Resources submitted must:

- be free to access
- originate from a credible source (university, research center, educational group)
- not be advocacy, but solutions focused and Guiding Principle aligned
- if an activity, should be stand-alone (i.e. not a module or a curriculum)
- teach one of the energy or climate principles and have a strong connection to climate

Before submitting a resource, please search the collection by title or url to be sure that it isn't already there!

Where to submit a resource



CLEAN > CLEAN Network > Suggestions for Resource Developers > Suggest Resource

[+ Share](#) [t](#) [f](#) [e-mail](#) [Like](#) { 0 }

CLEAN

Climate and Energy
Educational Resources

Teaching Climate and
Energy Science

CLEAN Network

CLEAN Network
Teleconferences

Tools for Educators

Suggestions for
Resource Developers

Science Reviewer
Volunteer

Suggest Resource

Gap Analysis

Suggest Resources

CLEAN Collection: Call for Educational Resources

We are seeking nominations of digital educational materials to be reviewed for possible inclusion in the CLEAN collection. We welcome submissions that:

- are directly focused on one of the literacies from the [Climate Literacy Framework](#) or [Energy Literacy Framework](#)
- are educational activities or are interactive tools, visualizations, maps, or datasets that can be used to create classroom, lab, or field activities.

Note that general websites addressing many aspects of climate or energy science are not as useful as specific ones geared toward a focused topic. Explore some [example activities](#) for a better understanding of the types of materials appropriate to CLEAN.

(there are also examples of resources and very thorough guidelines here...)

<http://cleanet.org/clean/community/suggestresource.html>