

# Climate Literacy and Energy Awareness Network (CLEAN)

## Building a foundation of support for climate and energy educators

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### CLEAN SUPPORTS TEACHERS WITH CLIMATE EDUCATION

**CLEAN Collection:** Contains 750+ peer-reviewed educational resources such as activities, lab demos, visualizations, and videos for grades K-16.

**Guidance for Teaching Climate and Energy Science:** Pedagogical support for teaching climate and energy topics, including background knowledge, best classroom practices, NGSS alignment, professional development support, and reference materials.

**CLEAN Network:** A professionally diverse community of climate and energy literacy stakeholders.

- Weekly teleconferences and presentations
- Vibrant email list
- Workshops and networking opportunities at events and conferences

**The CLEAN Network is free to join and is open to anyone.**

**THE CLEAN COLLECTION (cleanet.org)** is syndicated to the NOAA Teaching Climate portal: [climate.gov/teaching](https://climate.gov/teaching)

### Search the CLEAN Collection

**Collection Search Option:**  
 Open text search – Grade level – Resource type – Climate literacy principles  
 Energy literacy principles – Use of scientific data – Regional focus  
 Content topic areas – Next Generation Science Standards (NGSS)

### GET INVOLVED!

- Use teaching resources (collection, guidance, webinars)
- Submit a resource to the collection
- Join the CLEAN Network
- Become a CLEAN Ambassador
- Sign up for the STEM Flash Newsletter
- Become a resource reviewer

### CLEAN REVIEW PROCESS

**A rigorous and transparent peer-review process is used for the CLEAN collection.** Resources that are relevant to one of the climate and energy literacy principles and useful for grade levels K-16 are reviewed. *A rigorous review process developed by the Climate Literacy and Energy Awareness Network (CLEAN) by A. Gold et al., Journal of Geoscience Education 2012.*

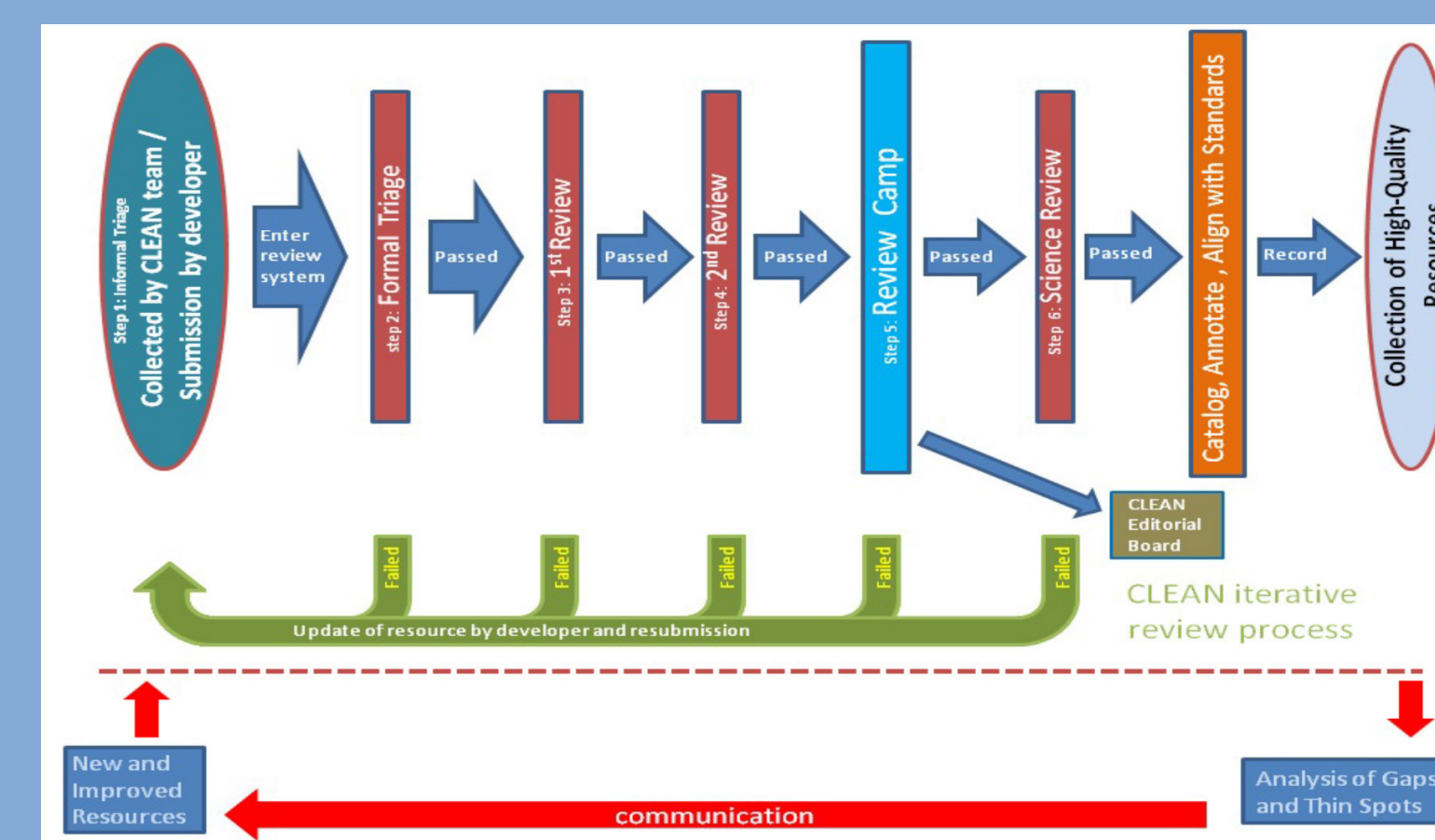
#### Review Process

Review for: a) scientific accuracy, b) pedagogic effectiveness, c) technical quality/ease of use.

**Panel Review:** Team of four educators and scientists discusses each resource and makes decision about inclusion in CLEAN.

**Expert Science Review:** Content expert in the field of the resource reviews for scientific accuracy.

**Maintenance Review:** Ensures ongoing quality of collection.



### CLEAN FOR EDUCATORS

Teaching Guidance: Pedagogical support in alignment with the Climate & Energy Literacy Principles and NGSS including:

- Online resource pages
- Virtual teaching resources
- Webinars
- Culturally relevant teaching resources
- Regular newsletters
- Unit Guides

Background pages available in Spanish & English including:

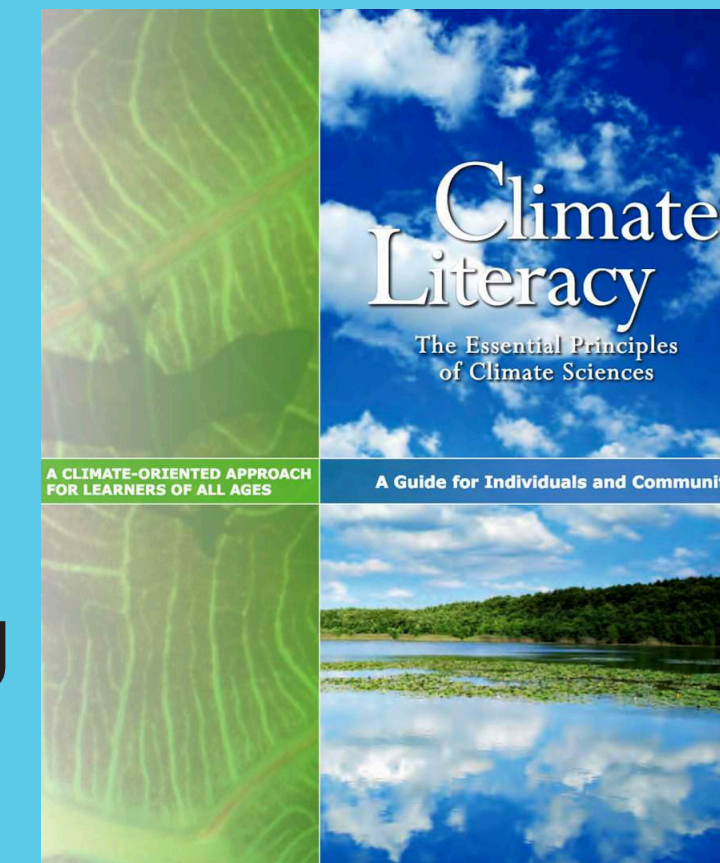
- Summaries of scientific concepts
- Relevant teaching resources
- Teaching strategies
- Reference materials

Our Teaching Climate & Energy Toolbox includes many online professional development resources to help you bring climate topics into your classroom.

### CLEAN FOR SCIENTISTS

#### CLEAN Expert Science Review

- We recruit volunteer expert scientists to spend 15-30 min each reviewing our resources for scientific accuracy
- Our expert science review boosts CLEAN credibility and gives teachers a reliable collection
- Provides scientists with activities and ideas for sharing their science and broadening their impact



### MARKETING CLEAN

CLEAN has been working since 2017 to market the CLEAN collection to educators. The efforts involved are:

- Social Media Engagement
- Professional Development Webinars
- STEM Flash Newsletter
- Work with developers
  - Syndication with sites like PBS Learning & NSTA
  - CLEAN “Selected By” logo
- Presentations at professional conferences
- Teacher Ambassador program
- Targeted outreach to states & school districts

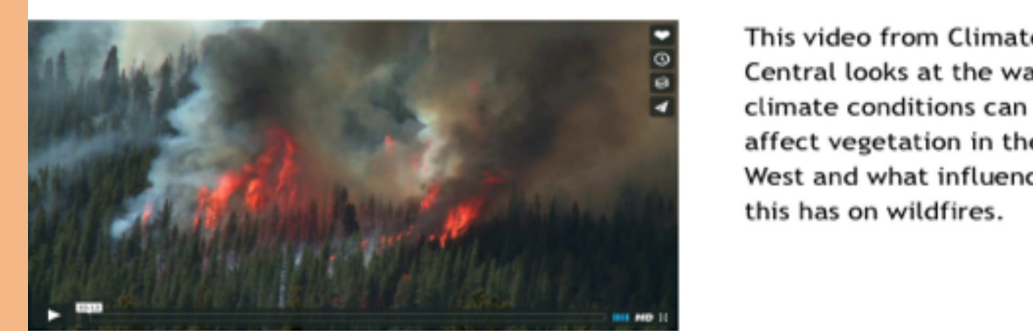
#### CLEAN STEM Flash: Wildfires and Climate Change

First in a series of timely climate & energy e-blasts to use and share. Sign-up here to be sure you're on the list. Browse the CLEAN Collection for NGSS-aligned resources.

CLEAN supports teaching and learning about climate and energy with 600+ free peer-reviewed, scientifically accurate, and classroom-ready resources.

**CLEAN Resource Spotlight:** **Wildfires Out West video** Watch this video for a quick overview about the causes and effects of wildfires. Audience: Middle and high school classes. Video length: 3:13 min.

Find more resources on wildfires in the CLEAN Collection.



#### Climate Literacy and Energy Awareness Network (CLEAN) Webinar Series

Take your teaching about climate and energy to the next level with the CLEAN Webinar Series. Use the buttons below to register for each free webinar. Webinar recordings of the event topics are posted below.

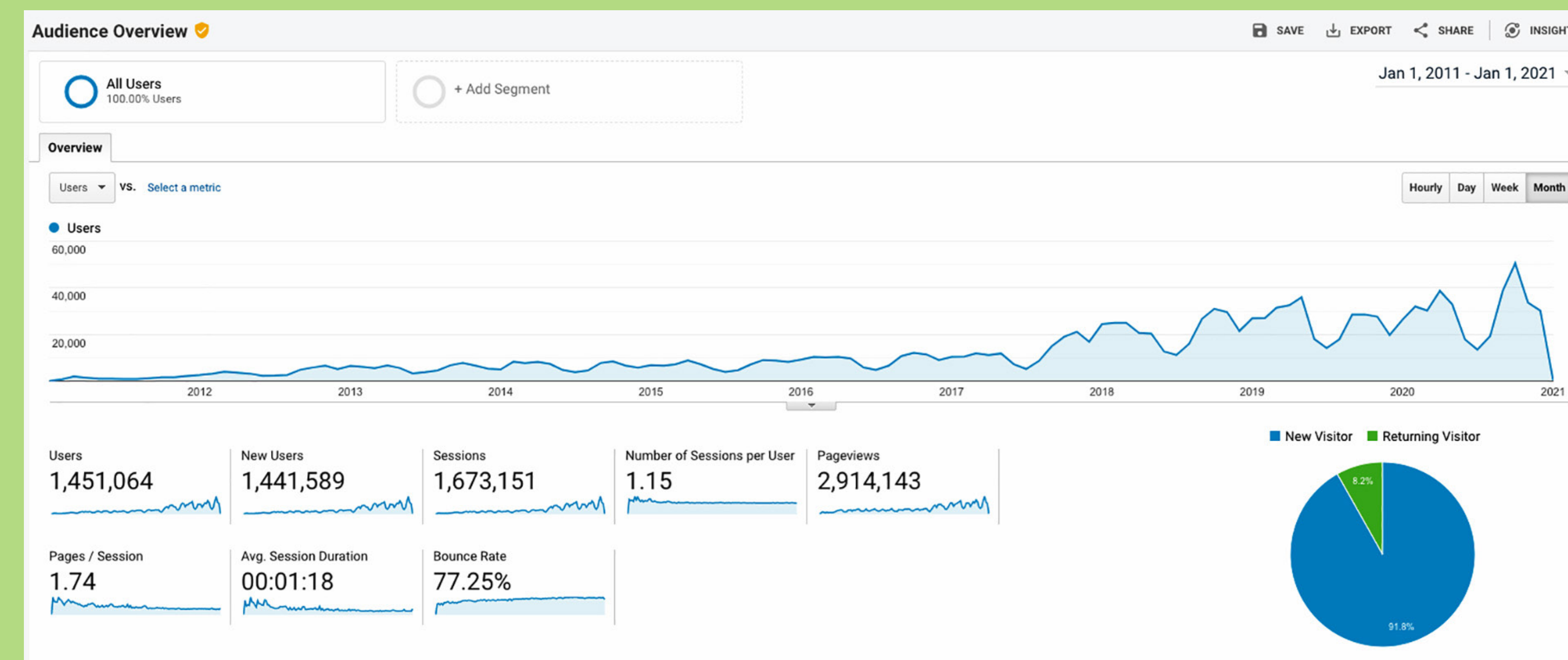
Watch the recording: **Intro to CLEANet.org**  
 This event occurred on Thursday, September 20, from 4:00-4:30 MT (6-6:30 ET, 5-5:30 CT, 3-3:30 PT).  
 Watch a guided tour of the CLEAN portal. Learn about the CLEAN collection of over 700 climate and energy educational resources that include data-based activities, demonstrations and experiments, videos, and visualizations. Plus, learn about the range of supporting materials on the CLEAN website that help you effectively and accurately teach about climate and energy topics.

Watch the recording: **Teaching About Climate and Energy Topics with CLEANet.org**  
 This event occurred on Tuesday, September 25, from 4:00-4:30 MT (6-6:30 ET, 5-5:30 CT, 3-3:30 PT).  
 See how to use the Teaching About Climate and Energy web guides to help build an excellent foundation for teaching and learning about climate and energy concepts. Also, see how these teaching guides are integrated with the CLEAN collection of over 700 climate and energy resources on the CLEAN website.

### WEB ANALYTICS

CLEAN tracks website traffic through Google Analytics. Web analytics data show marketing efforts have been successful.

- The CLEAN website and the syndicated CLEAN collection site at NOAA's Climate.gov have received almost 3 million visitors over the 10 years CLEAN has been active!
- After the 2017 marketing efforts, users, new users, and pageviews increased by about 70% in 2018 compared to 2017.



Increase in CLEAN web sessions over project lifetime.