

Climate Hope: Optimism and Solutions Around Climate Change

Adam Ratner | The Marine Mammal Center | NAAEE Annual Conference | October 19, 2019



The Marine Mammal Center is the World's largest marine mammal hospital and education facility

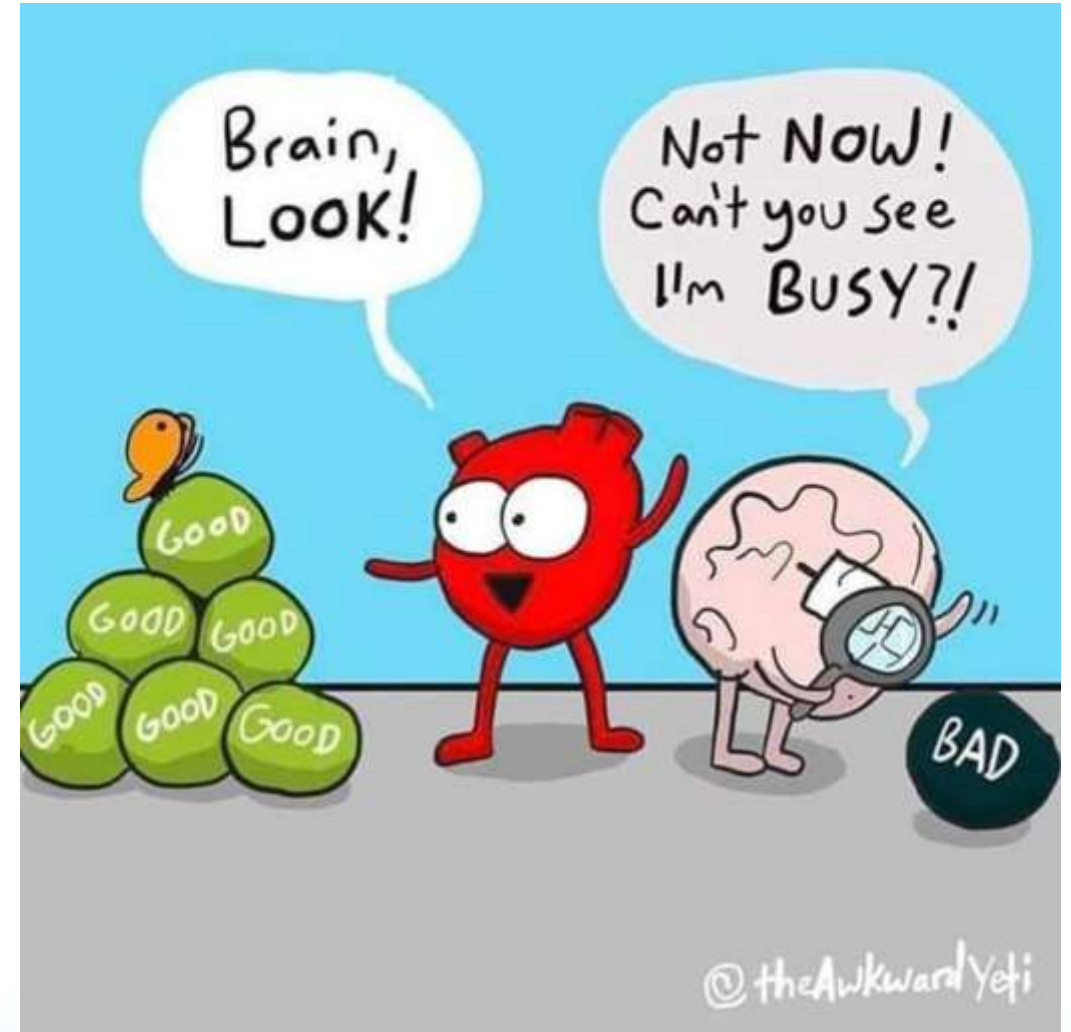


"If you look at the science about what is happening on earth and aren't pessimistic, you don't understand data. But if you meet the people who are working to restore the earth and you aren't optimistic, you haven't got a pulse."

-Paul Hawken, environmentalist and author

“It takes the same amount of energy to complain as it does to exclaim – but the results are incredibly different.”

Margaret Lowman, author and field biologist





<https://www.youtube.com/watch?v=-shx0D2hHic>

"The climate crisis has already been solved. We already have all the facts and solutions. All we have to do is to wake up and change. So instead of looking for hope, look for action. Then, and only then, hope will come."

- Greta Thunberg



[Journal Information](#)
[Journal TOC](#)

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PsycARTICLES: Journal Article

Climate change helplessness and the (de)moralization of individual energy behavior.

Salomon, Erika, Preston, Jesse L., Tannenbaum, Melanie B.

Journal of Experimental Psychology: Applied, Vol 23(1), Mar 2017, 15-28

Although most people understand the threat of climate change, they do little to modify their own energy conservation behavior. One reason for this gap between belief and behavior may be that individual actions seem unimpactful and therefore are not morally relevant. This research investigates how climate change helplessness—belief that one's actions cannot affect climate change—can undermine the moralization of climate change and personal energy conservation. In Study 1, climate change efficacy predicted both moralization of energy use and energy conservation intentions beyond individual belief in climate change. In Studies 2 and 3, participants read information about climate change that varied in efficacy message, that is, whether individual actions (e.g., using less water, turning down heat) make a difference in the environment. Participants who read that their behavior made no meaningful impact reported weaker moralization and intentions (Study 2), and reported more energy consumption 1 week later (Study 3). Moreover, effects on intentions and actions were mediated by changes in moralization. We discuss ways to improve climate change messages to foster environmental efficacy and moralization of personal energy use. (PsycINFO Database Record (c) 2017 APA, all rights reserved)

Networks of Support and Distribution



naaee

North American Association
for Environmental Education

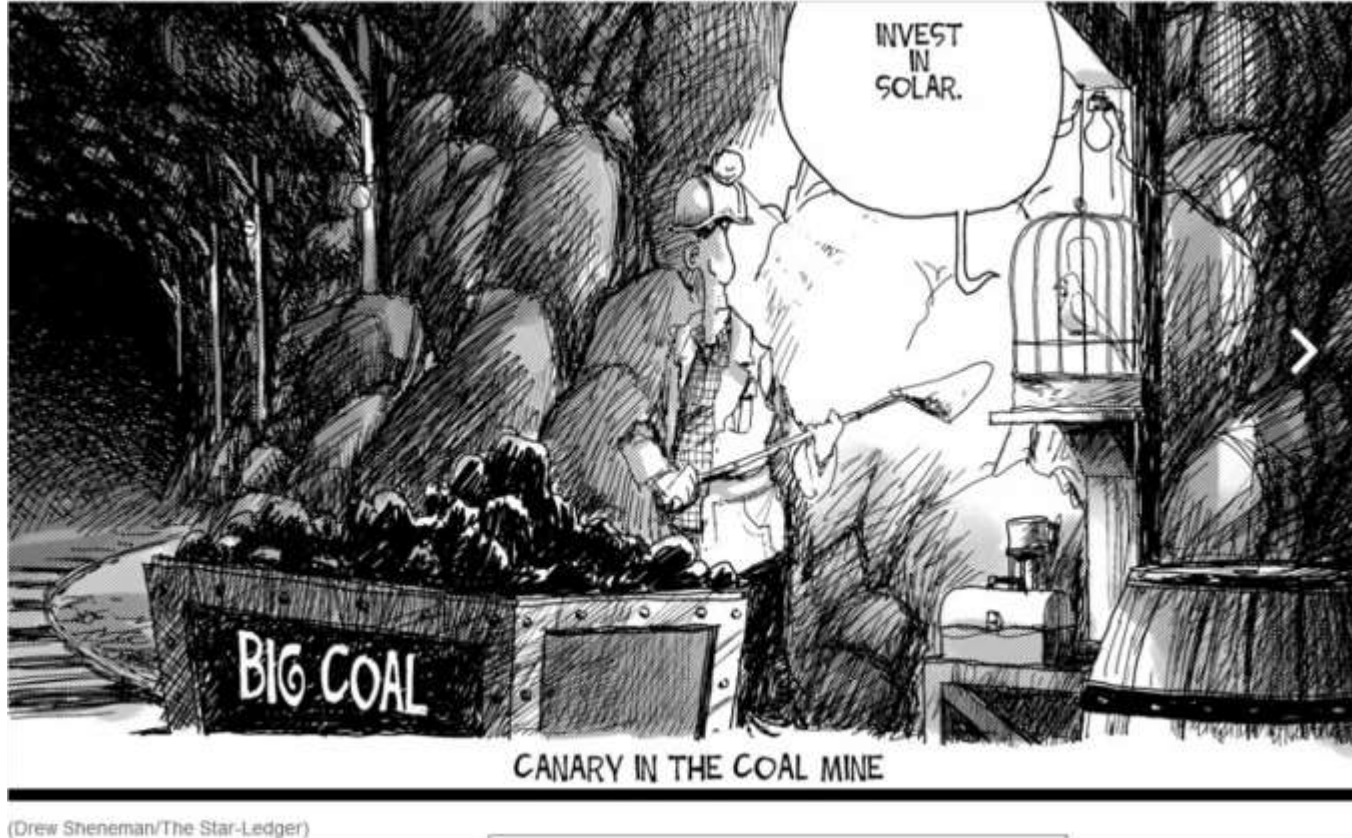
BAYCLIC

Bay Area Climate Literacy Impact Collaborative

NNOCCI National Network for Ocean and
Climate Change Interpretation



Climate Change



*“How else would I keep my solar panels
in the sun all day?”*

Scientists Politely Remind World That Clean Energy Technology Ready To Go Whenever

NEWS IN BRIEF • Science & Technology • ISSUE 50•20 • May 21, 2014



95.1K



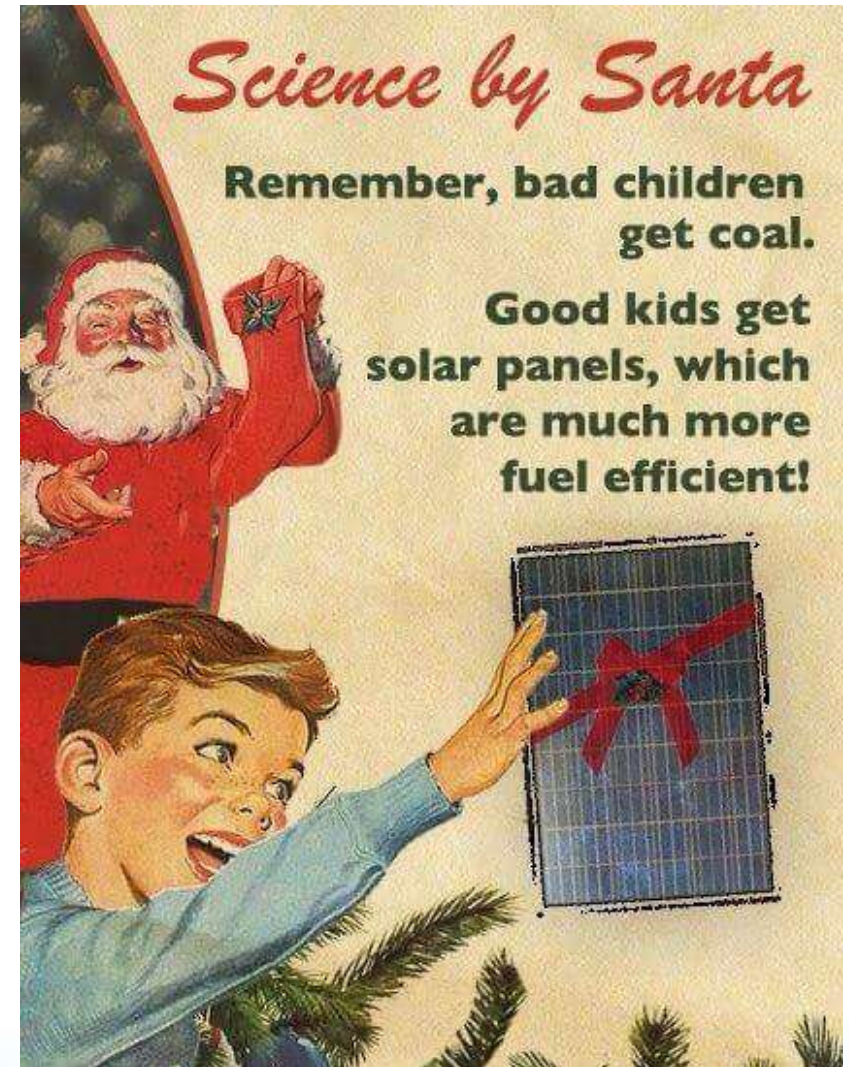
1.5K



369

Economics of Energy

- Between 77-83% of current solar and wind projects will be cheaper than fossil fuels by 2020
- By 2035, it will be cheaper to build new solar and wind farms than run existing natural gas plants!
- Energy companies going renewable
 - Xcel Energy to go 100% clean energy by 2050
 - Duke Energy to slash emissions by 50% by 2030
- \$11 trillion has been divested from fossil fuel companies



ENERGY · Published April 6, 2017 · Last Update November 15, 2017

Kentucky Coal Mining Museum switches to solar power

By | Fox News

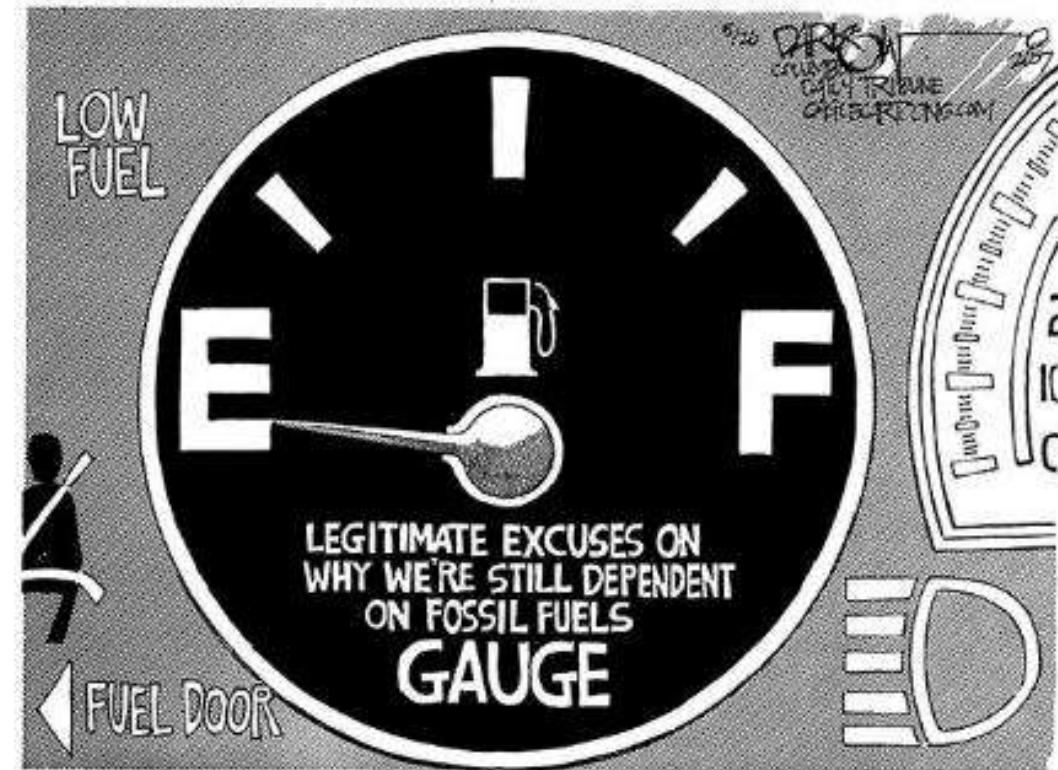


For some of life's questions, you're not alone. Together we can find an answer.

[Find out more >](#)

International Efforts

- Over 70 major cities, home to 425 million people, are now committed to carbon neutrality by 2050
- China met 2020 carbon goal two years early and has cut their carbon intensity by 46% since 2005
- India, France, Britain and Norway passed resolutions to ban gasoline or diesel vehicles in next 25 years
 - Volkswagen will only produce electric vehicles starting in 2026



We Are Still In

- 17 States
- 540 Cities, Counties and Tribes
- Over 340 Colleges and universities
- Over 2000 businesses and cultural institutions
- More than 80 cities have committed to 100% clean energy



Population (2018)
173 Million
53% of all Americans



Gross Domestic Product (2018)
\$11.4 Trillion
58% of total U.S. GDP



GHG Emissions (2018)
2.4 GT
37% of U.S. GHG Emissions

State and City Action

- Washington DC, New Mexico, Washington, Nevada, Maine, New York and California all commit to 100% clean energy by 2050 or earlier
- Over 90 cities, including Chicago, Cincinnati, St. Louis, Kansas City, Atlanta, Cleveland, Denver and more are committed to 100% clean energy



Business Efforts

- Google, Apple, Microsoft and Wells Fargo facilities and data centers are now 100% carbon neutral
- Lyft is a fully carbon neutral company
- Bank of America, Citi Bank, Visa, Coca Cola Europe and Facebook are committed to 100% renewable energy within the next year
- HSBC, ING and BNP Paribas Banks divested from essentially all fossil fuel investments





The Marine
Mammal Center.

**BUSINESS
AMBITION FOR 1.5°C**   **OUR ONLY
FUTURE**

87
major
companies

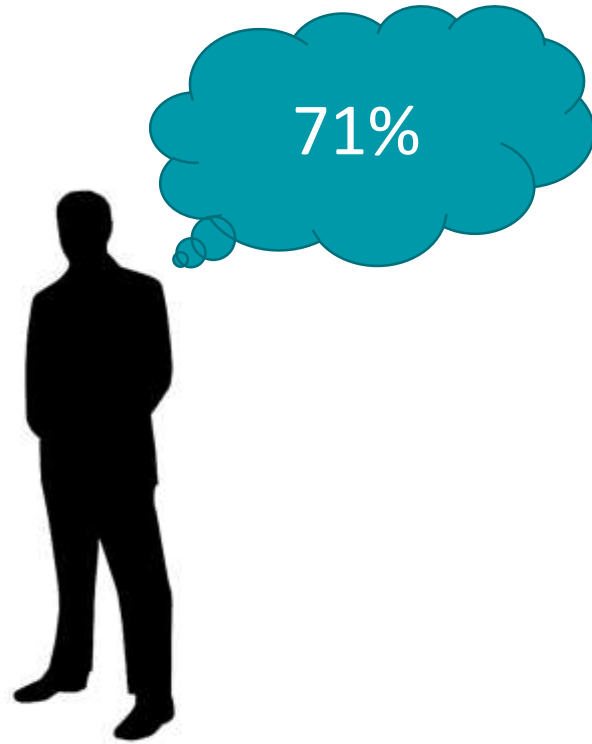
\$2.3
trillion
market cap

**LEADING THE
WAY TOWARDS
A 1.5°C FUTURE**

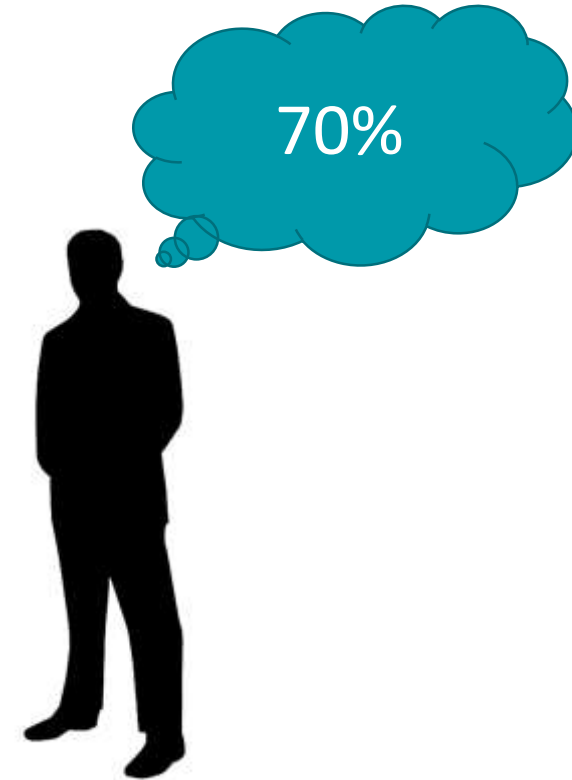
#OurOnlyFuture



Public Opinion



Americans who support the government to
require 100% renewable energy by 2050



Americans who favor stronger fuel
efficiency standards for cars and trucks

Yale Program on Climate Change Communication

People Want To Know About Climate Change

70% of Americans believe in climate change, but 65% rarely talk about it!

70% of people visiting organizations like the Center want recommendations on how to address climate change!



Inspiring Action Through Values

Protection



Responsible Management



Understanding Through Metaphors

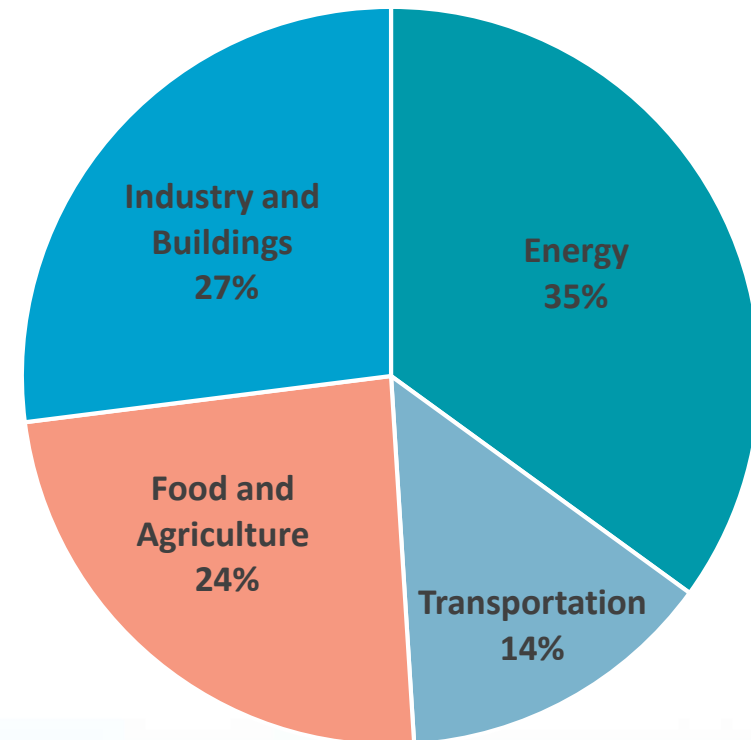
- The burning of fossil fuels like coal, oil, and natural gas is causing an increase in carbon dioxide in the atmosphere.
- This traps the heat of the planet like a blanket causing the oceans, land and atmosphere to warm.



Sources of Heat-Trapping Gases

Global Heat-Trapping Gas Emissions
Economic Sector

- Energy
- Transportation
- Food



Community Solutions: Energy



Project Sunroof

Mapping the planet's solar potential, one roof at a time.

COMMUNITY CHOICE AGGREGATION (CCA)



SOURCE

CCA

Buying and Building
Electricity Supply

DELIVERY

UTILITY

Delivering Energy,
Maintaining Lines

CUSTOMER

YOU

Affordable Rates,
Local Control, Clean Energy

Community Solutions: Transportation

COMMUTER INCENTIVE PROGRAM

BICYCLE PROGRAM



DIRECT FINANCIAL AWARDS



FREE MEALS



ONE DOLLAR PER DAY



PRIZE DRAWINGS



Community Solutions: Food



Not a Moment, But a Movement





What Gives You Climate Hope?

Mentimeter

Young, beautiful minds!

The shift in public opinion.

My 4th grade students who want to make the world better and safer.

Some media is abandoning the false dichotomy in climate change reporting where they give time to deniers

Young people!!!

Hopeful "cli-fy" (climate fiction)

Consumers are demanding change! We vote with our money!

That it is possible to mitigate and even reverse climatic issues!

Hearing how communities are working together

34





What Gives You Climate Hope?

Mentimeter

The energy that is restored and created through hope and love!

North American Association for Environmental Education and the amazing work and changes happening around the country

Seeing communities taking action

The impossible burger

The public's ability to force change in the market; people speaking up, voices are getting louder

My 90 year old mother. She lived in London during WW2 and had to shift her whole lifestyle and way of doing things. Her house was bombed twice, but she is the most hopeful and positive person you could ever meet. We can do this!

Students choosing to consider decreasing meat consumption and increase options of plant based diets.

34



What Gives You Climate Hope?

Mentimeter

Youth Civic Action

Youth involvement Existing programs

Young people!

Young people mobilizing and finding innovative solutions.

Use of natural sequestration by planting prairies, trees, wetlands, etc.

Civic action Citizen science State science standards

Inspirational and optimistic talks like this one!

The scale of divestment

Young people like my students. My nieces and nephews.

34



What Gives You Climate Hope?

Mentimeter

Young people, stories about working toward change.

Climate justice

Our youth!

Julianna vs. The United States

Working with teenagers and students who push me as an educator!

My students!!!

my student who inspired her mom to start composting at home

Public opinion is shifting

All of the things people are doing to make a change: no waste lunches, bioplastics, solar energy

34

Thank You! Questions?



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The Marine Mammal Center advances global ocean conservation through marine mammal rescue and rehabilitation, scientific research, and education.



The Marine
Mammal Center.