#### My CC News

Bruce Parker April 22, 2020 bruce@chesdata.com

My Climate Change News is a repository of articles and information on climate change. Users can search a database with over 100,000 articles from over 1,000 organizations, have emails of recent articles sent to them on a periodic basis, look at trends related to climate change, and learn about climate science. In addition, users can contribute to the site by submitting URLs of either articles to include or web pages with links to multiple articles.

#### **Key Features:**

- Over 70 Web pages are programmatically searched daily for new articles
  - o URLs for additional articles of interested are also added
  - Articles related to climate change topics are marked as such
- The "Search" page allows for both simple and advanced searching
  - Simple searches are by key word and date range (defaults to the last two days) for climate related articles
  - Advanced searching can be done by organization, article source, category, keyword, etc.
  - o In addition, the user can pre-define sets of topics, organizations, and authors
- Users can request multiple emails to be sent on a periodic basis.
  - For each email the user specifies the selection criteria, a set of topics, a set of organizations, the fields to include, the number of characters in the "summary", and the "sort order"
- A "Trends" Web page show trends for various climate-related topics (greenhouse gas concentrations, Arctic sea ice extent, etc.) Users can set up their own "dashboard" to show the trends in which they are most interested (planned)
- A "Climate Science" section provides information on <u>climate science</u>, <u>images</u> related to climate change, and an <u>example</u> of how climate change information could be presented on the Web
- A <u>curated list</u> of the major climate change topics allows the user to see why each topic is important, what the current status is, how the status is likely to change, commentary about the topic, recent articles, etc.
- The "Optimist Corner" and "Alarmist Corner" <u>forums</u> outline the major arguments for the corresponding "positions" (in progress)
  - o Registered user can comment on the various arguments

There is no charge for using any of the services provided by My Climate Change News, the site will never have any advertising, user data is not tracked, and user information will never be distributed to any third-party person or organization.

#### Organizations , Organizations Tracked, and Organization Sets

With many hundreds of articles about climate change posted to the Web every day, keeping up with the latest climate changes news can be very daunting. My CC News provides several ways to simplify the process of quickly reviewing articles from specific organizations:

- The "Organizations" Web page lists the organizations with over 15 climate-related articles. The user
  can see how many articles are in the database for the last month and year and either click on the
  numbers to see a list of the most recent 40 articles or click the organization's name to see the
  organization's Web page (See "Organizations Tracked" below for examples of "results" from clicking on
  a link.)
- The "Organizations Tracked" Web page lists, for each Web page tracked, the organization, the URL that used to extract the links to the articles, and counts of the number of articles for the entire database, for the past year, and for the last 30 days. The user click on a "Website URL" to display the Web page used to extract the links to the articles or click on the "View" link to see a list of the most recent 40 articles.
- The user can create one or more "Organization Set" of the organizations that the user would like to track as a group. (The system provides several "sets" which the use can copy.) The user can display article information from the list of the "Organization Sets" for a variety of date ranges. This provides an alternative to periodic emails, as a specific organization set can be "bookmarked" (e.g., "Bruce's List" is at <a href="http://myccnews.org/PreviewFromOrgSet.aspx?orgsetid=15">http://myccnews.org/PreviewFromOrgSet.aspx?orgsetid=15</a>).

Note that some organizations Web pages or newsletters (e.g., Climate Brief, Climate Nexus, etc) contain links to articles on other organization's Web sites. This increases the number of organizations in the database to well over 1,000.

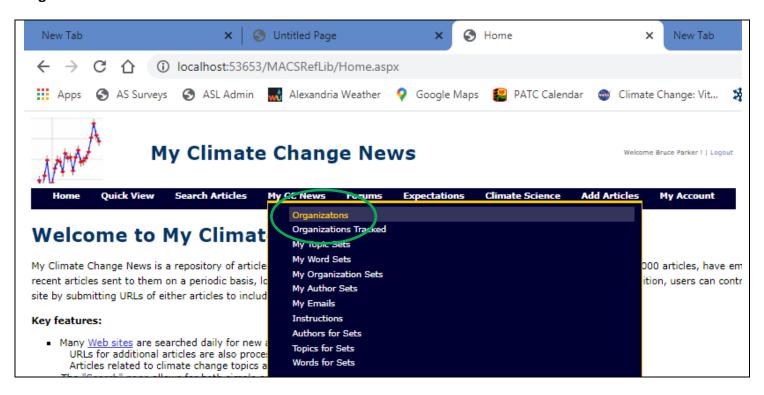
#### Menus

The menus for a "desktop" browser and "mobile" browser are slightly different. The "desktop" version has more options and "sub menus":



The "mobile" version has fewer menu options and no "sub menus":

#### **Organizations**





# Organizations With at Least Five Articles in the Past Year

- There are over 1,500 organizations with articles in the My CCNews database. About 250 have had more than five articles past year.
- Click on an 'organization name' link to view the Web page from which links to articles are obtained.
- The numbers in parenthesis is the total number of climate-related articles (for the last 30 days and for the last year )in the database.
- The Click on a 'number' link (in parentheses) to view the 40 most recent climate-related articles found on the organization's Web page.

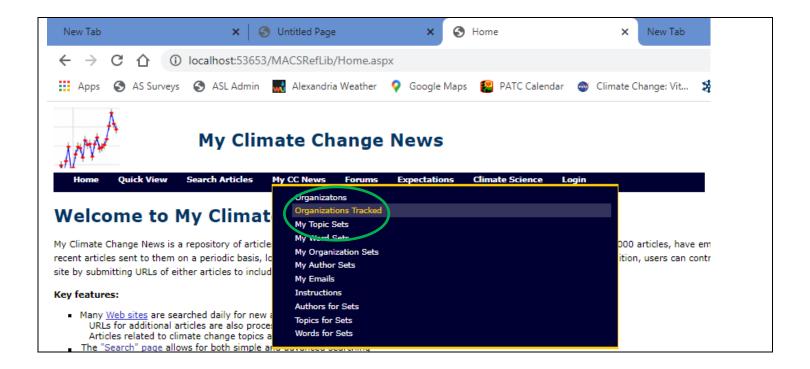
Show Organizations With At Least One Article In The Last Month Show Organizations With At Least One Article In The Last Year ABC (0/9) Inthesetimes (0/7) Sciencedaily (0/8) Aljazeera (0/21) IOP Science (0/6) Scientific American (11/92) American Geophysical Unions (0/29) Irish Times (0/6) Scientific American - Climate (11/58\*) Ametsoc (0/8) Kentucky (0/14) SCMP (0/9) SF Chronicle (0/23) AP News (0/647) Kinja Static (0/23) Sightline (14/24\*) Apple News (0/8) Knoxnews (0/6)Skeptical Science (26/273\*) Arstechnica (0/14) KQED (0/6) Axios (0/265) Lasvegas Sun (0/6) SKY (0/10) BBC (100/2208\*) Legal Planet (19/32\*) Slate (0/10) Bloomberg (1/176) Los Angeles Times (0/81) Springer (0/19) Mailchi (0/8) Bloomberg Environment (0/23) Standard (0/7) Market Watch (0/17) Boston Globe (1/29) Startribune (0/9) Business Green (0/59) Mercury News (0/9) Statesman (0/6) Miami Herald (0/11) Bustle (0/6) Suntimes (0/6) MIT (44/419) Buzzfeed News (0/18) Sustainable Brands (26/63\*) Carbon Brief (595/4837\*) MIT - Carbon (6/27\*) Sydney Morning Herald (0/8)

# Organizations With at Least One Article in the Past Year

- . There are over 1,500 organizations with articles in the My CCNews database. About 250 have had more than five articles past year.
- Click on an 'organization name' link to view the Web page from which links to articles are obtained.
- The numbers in parenthesis is the total number of climate-related articles (for the last 30 days and for the last year )in the database.
- The Click on a 'number' link (in parentheses) to view the 40 most recent climate-related articles found on the organization's Web page.

Show Organizations With At Least C	one Article In The Last Month Show Organizations With Mo	ore Than 5 Articles in Past Year
12news (0/1)	Guardian - Energy (29/273*)	Revue (0/45)
AAAS (0/1)	Guernicamag (0/1)	RgS-Ibg (0/1)
Aawsat (0/1)	Guymcpherson (0/1)	RHG (0/1)
ABC (0/9)	Hackaday (0/1)	Richmond (0/2)
Achnews (0/1)	Hakaimagazine (0/1)	Riskandinsurance (0/1)
ACS (1/1)	Harpers (0/1)	Rmets (0/6)
Adweek (0/1)	Harvard (0/2)	Roanoke (0/3)
AEON (0/1)	Hattiesburgamerican (0/1)	Robertscribbler (0/1)
AFP (0/2)	Hawaiipublicradio (0/1)	Robinwestenra (0/2)
AFR (0/1)	HBR (0/4)	Rollcall (0/9)
Agencia (0/1)	HCN (0/17)	Rolling Stone (0/16)
Agfundernews (0/1)	Heated World (9/12*)	Royal Society Publishing (0/1)
AGU (0/1)	Herald Scotland (0/4)	RSC (0/4)

#### **Organizations Tracked**

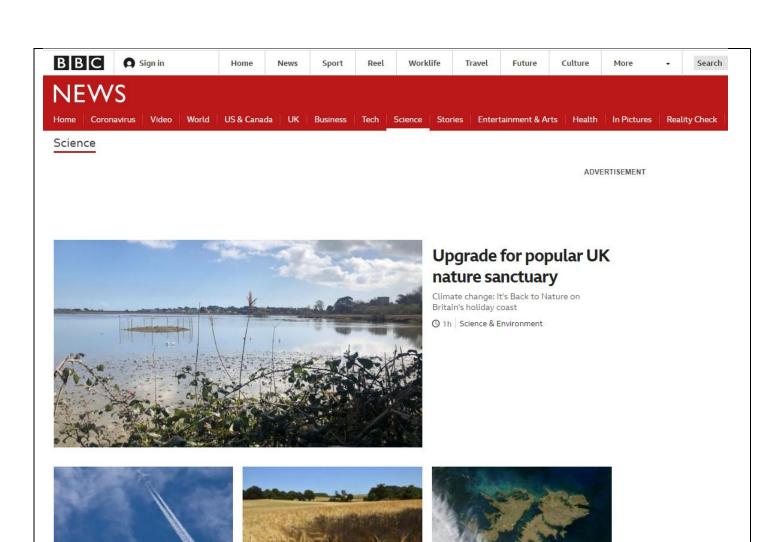


# **Oganizations Tracked**

These are the organizations (and their URLs) which are tracked by My CC News. Notes:

- URLs marked as 'Pending' are not currently tracked.
- Carbon Brief and Climate Nexus are aggregators of climate change news and have links to articles on many other Web sites.
- When multiple Web pages are tracked for the same organization (e.g., MIT, Yale), an article is often posted on multiple URLs. It this case the article will only be associated with one URL.
- Click on a 'Website URL' link to view the Web page from which links to articles are obtained.
- Click on a 'View' link to view the most recent 40 articles found on the Website URL.

Organization	Website URL	Status	A	Article Co	ounts	Last 40
			Total	Prev Year	Last 30 Days	Articles
BBC	https://www.bbc.com/news/science_and_environment		2301	1796	54	View
Carbon Brief	https://www.carbonbrief.org/		17933	4691	509	View
Climate Central	https://www.climatecentral.org/		230	126	7	View
Climate Change News (Blog)	http://climate-change-news.blogspot.com/	(Pending)	0	0	0	
Climate Change News - Comment	https://www.climatechangenews.com/comment/		31	25	8	View
Climate Change News - Energy	https://www.climatechangenews.com/energy/		50	36	3	View
Climate Change News - Finance	https://www.climatechangenews.com/finance/		58	37	3	View
Climate Change News - Land	https://www.climatechangenews.com/land/		40	38	6	View
Climate Change News - Politics	https://www.climatechangenews.com/politics/		85	81	12	View
Climate Change News - Science	https://www.climatechangenews.com/science/		74	30	0	View
Climate Change News - Technology	https://www.climatechangenews.com/technology/		42	29	5	View
Climate Crocks	https://climatecrocks.com		3744	623	47	View
Climate Nexus	(From emails)		11468	94	0	View
Columbia Law	http://blogs.law.columbia.edu/climatechange/	(Pending)	0	0	0	
DeSmogBlog	https://www.desmogblog.com/frontpage_new?page=		7707	329	8	View



Huge knowledge gap over health of soil

A vital knowledge gap about England's environment has been uncovered by soil

Ancient tsunami may have struck

Evidence of past underwater landslides

Falkland Islands

'The rich are to blame for climate

change'

#### Most recent 40 articles: BBC

Show All Summaries

Hide All Summaries

(Click a 'down arrow' on the left to view an article's summary)

▼Ancient tsunami may have struck Falkland Islands - BBC (Mar 15)

▼The inferno planet where it 'rains metal' - BBC (Mar 11)

▼City pollinators make beeline for violet blooms - BBC (Mar 10)

▼Seagrass planted to help climate change fight - BBC (Mar 9)

▼UK 'can't go climate neutral before 2050' - BBC (Mar 9)

▼Historic locations 'threatened by climate change' - BBC (Mar 8)

VRiver levels halved in flood-hit town - BBC (Mar 7)

▼Drones used to study shrinking Andes glaciers - BBC (Mar 5)

▼Thunberg brands EU's new climate law 'surrender' - BBC (Mar 4)

▼Greener petrol at UK pumps to target emissions - BBC (Mar 4)

▼Satellite will be 'tuned to Australian vegetation' - BBC (Mar 3)

▼Climate woes grow amid wettest February on record - BBC(Mar 2)

#### Most recent 40 articles: BBC

Show All Summaries

Hide All Summaries

(Click a 'down arrow' on the left to view an article's summary)

▲ Ancient tsunami may have struck Falkland Islands - BBC (Mar 15)

Mar 15 · The Falkland Islands may at some point in the future face a major tsunami.

Scientists have found evidence of ancient slope failures on the seafloor to the south of the British Overseas Territory.

Computer models suggest these underwater landslides would have been capable of sending waves crashing on to the Falklands' coastline that were tens of metres high.

Fortunately, such events only appear to happen once every million years or so.

That means islanders shouldn't stay awake at night worrying about them, says Dr Uisdean Nicholson who's been investigating the issue.

"But you do want to capture risks at a range of different timescales. So I definitely ... Read more ...

▼The inferno planet where it 'rains metal' - BBC (Mar 11)

VCity pollinators make beeline for violet blooms - BBC (Mar 10)

▼Seagrass planted to help climate change fight - BBC (Mar 9)

▼UK 'can't go climate neutral before 2050' - BBC (Mar 9)

▼Historic locations 'threatened by climate change' - BBC (Mar 8)

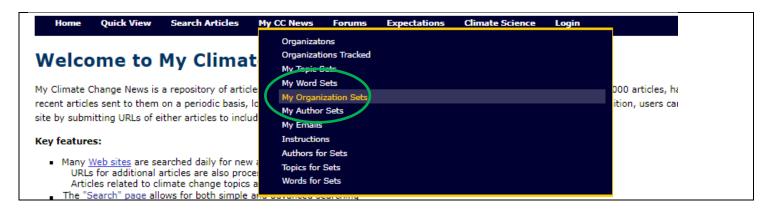
▼River levels halved in flood-hit town - BBC (Mar 7)

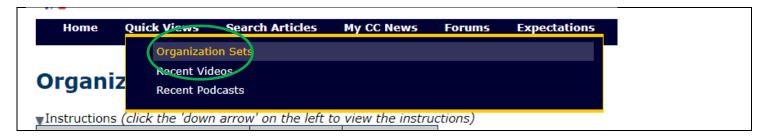
▼Drones used to study shrinking Andes glaciers - BBC (Mar 5)

#### Most recent 40 articles: BBC Show All Summaries Hide All Summaries (Click a 'down arrow' on the left to view an article's summary) ▲ Ancient tsunami may have struck Falkland Islands - BBC (Mar 15) Mar 15 · The Falkland Islands may at some point in the future face a major tsunami Scientists have found evidence of ancient slope failures on the seafloor to the south of the British Overseas Territory. Computer models suggest these underwater landslides would have been capable of sending waves crashing on to the Falklands' coastline that were tens of metres high. Fortunately, such events only appear to happen once every million years or so. That means islanders shouldn't stay awake at night worrying about them, says Dr Uisdean Nicholson who's been investigating the issue. "But you do want to capture risks at a range of different timescales. So I definitely ... Read more ... ▲The inferno planet where it 'rains metal' - BBC (Mar 11) Mar 11 · Astronomers have observed a distant planet where it probably rains iron. It sounds like a science fiction movie, but this is the nature of some of the extreme worlds we're now discovering. Wasp-76b, as it's known, orbits so close in to its host star, its dayside temperatures exceed 2,400C - hot enough to vaporise metals. The planet's nightside, on the other hand, is 1,000 degrees cooler, allowing those metals to condense and rain out. It's a bizarre environment, according to Dr David Ehrenreich from the University of Geneva. "Imagine instead of a drizzle of water droplets, you have iron droplets splashing down," he told BBC News. The Swiss ... Read more ... ▲ City pollinators make beeline for violet blooms - BBC (Mar 10) Mar 10 · Bumblebees in towns and cities prefer violet coloured native flowers to other available blooms, a study has shown. The researchers behind the work say the needs of urban pollinators are often overlooked for other factors, such as aesthetics. Almost 30% of bumblebee species in Europe are estimated to be threatened or near threatened with extinction. The findings have been published in the Urban Forestry & Urban Greening journal. "This trend is related to habitat loss as a result of agriculture intensification, urban development and climate change," the team of scientists wrote. The decline of bumblebees and other pollinators has been causing concern as ... Read more ... ▲Seagrass planted to help climate change fight - BBC (Mar 9) Mar 9 · A million seagrass seeds are being planted as part of Britain's largest project to save the "wonder plant". Experts say seagrass helps tackle the effects of climate change by absorbing carbon dioxide faster than trees. But up to 92% of the plant may have disappeared from the UK's coast over the last century, research has found. Work has now started on lowering the seeds onto the seabed off Pembrokeshire to create a new 20,000 sq m (215,280 sq ft) meadow. Scientists hope it will also help boost fish numbers and support marine wildlife. Seagrass, which is found in shallow waters of coastal regions, has been declining globally at a rate of about 7% a year ... Read more ...

#### **Organization Sets**

There are two ways view the Organization Sets:





The following will be displayed if a user as not logged in:

# Organization Sets (System - for viewing and use in searching only)

■Instructions (click the 'down arrow' on the left to view the instructions)

Set Name		(You must login to add/edit/delete sets)	
Blogs	View		Display Articles
Bruce's List	View		Display Articles
Colleges and Universities - Climate	View		Display Articles
Green News	View		Display Articles
Journals	View		Display Articles
Major Newspapers	View		Display Articles
Newsletters	View		Display Articles
Newspaper Climate Sections	View		Display Articles

View All

Once a user logs in the user's "Organization Sets" can be added, edited, renamed, or deleted

# **Organization Sets**

"Organization Set" records allow you specify which organizations will be included on searches and in emails. The MyCCNews system includes several "sets" that you can both use and copy to create your own customized lists.

Click the "View" link to see which organizations are included in a specific "set"

Click the "Edit" link to make changes to your "set"

Click the "Copy" link to use the corresponding "set" as a template for a new "set"

Click the "Rename" link to give the "set" another name

Click the "Delete" link to delete "set" (you will be asked to confirm the delete)

Click the "New" button to create new set

Click the "View All" button to view the organizations included in all "sets"

Note the the current organizations included in the "system set" will likely change before the final version is released (which will

likely be at the end of August 2020.

Set Name						
Blogs	View	Edit	Сору	Rename	Delete	Display Articles
Bruce's List	View	Edit	Сору	Rename	Delete	Display Articles
Colleges and Universities - Climate	View	Edit	Сору	Rename	Delete	Display Articles
Green News	View	Edit	Сору	Rename	Delete	Display Articles
Journals	View	Edit	Сору	Rename	Delete	Display Articles
Major Newspapers	View	Edit	Сору	Rename	Delete	Display Articles
Newsletters	View	Edit	Сору	Rename	Delete	Display Articles
Newspaper Climate Sections	View	Edit	Сору	Rename	Delete	Display Articles

New View All

# **Organization Sets**

#### Blogs

Climate Crocks **Huffington Post** PHYS.ORG DeSmogBlog

Skeptical Science

vox

#### Bruce's List

Climate Change News - Energy Climate Change News - Science

Economist

Eric Holthaus (The Correspondent)

Grist Climate and Energy Guardian - Climate Change

MIT - Climate

MIT - Greenhouse Gases

Washington Post - Climate and Environment

# Colleges and Universities - Climate

MIT - Carbon

MIT - Climate MIT - Greenhouse Gases MIT -Climatechange

Yale Climate Connections - Ecosystems Yale Climate Connections - Energy

Yale Climate Connections - Science

#### Green News

Green Tech Media Greenbiz

Grist Sightline Sustainable Brands

Click an "Edit" link to make changes to an "Organization Set" (simply "Check" the organizations to be included):



From the list of "Organization Sets", click the "Display Articles" link to display a Web page with links for displaying articles:

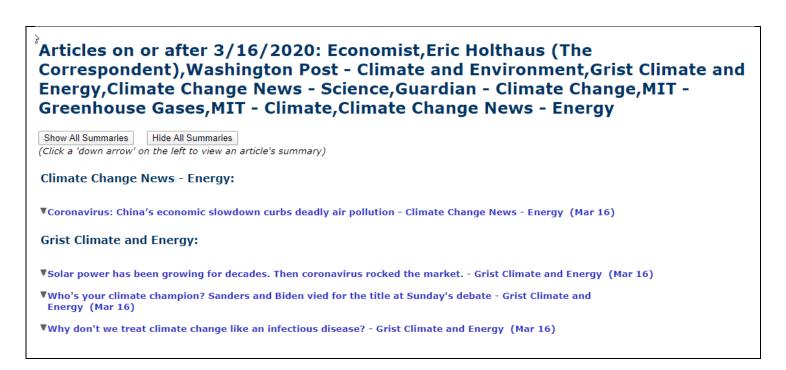
# Preview Articles From Organization Set 'Bruce's List'

Organization	Number of Days Before Today						Number of Articles To Li			
	1	2	5	7	10	14	10	20	30	
Climate Change News - Energy	View	View	View	View	View	View	View	View	View	
Climate Change News - Science	View	View	View	View	View	View	View	View	View	
Economist	View	View	View	View	View	View	View	View	View	
Eric Holthaus (The Correspondent)	View	View	View	View	View	View	View	View	View	
Grist Climate and Energy	View	View	View	View	View	View	View	View	View	
Guardian - Climate Change	View	View	View	View	View	View	View	View	View	
MIT - Climate	View	View	View	View	View	View	View	View	View	
MIT - Greenhouse Gases	View	View	View	View	View	View	View	View	View	
Washington Post - Climate and Environment	View	View	View	View	View	View	View	View	View	
All - By Title	View	View	View	View	View	View				
All - By Organization	View	View	View	View	View	View				

- Click on 'View' to see the articles from the specified Web site (or from all of the above Websites).
- You can view the articles either (1) by date range (number of days before today) or (2) the most recent 10, 20, or 30.Note
  the have a "climate change word" in either the title or summary.)
- Click in the 'Organization' to see the Web page used to get articles for the database.

#### Examples:

# Articles on or after 3/12/2020: Washington Post - Climate and Environment Show All Summaries Hide All Summaries (Click a 'down arrow' on the left to view an article's summary) ▼Bernie Sanders's climate record in Congress: Lots of advocacy, no compromise - Washington Post - Climate and **Environment (Mar 12)** ▼Fill 'er up: Trump to buy oil to fill the Strategic Petroleum Reserve - and help companies - Washington Post - Climate and Environment (Mar 13) ▼Pollution is plummeting in Italy in the wake of coronavirus, emissions data show - Washington Post - Climate and **Environment (Mar 13)** ▼The coronavirus is dangerous. But some experts wonder if bad air makes it worse. - Washington Post - Climate and **Environment (Mar 15)** ▼The Energy 202: Joe Biden nabs endorsement from National Wildlife Federation's political arm in first for the group -The Washington Post - Washington Post - Climate and Environment (Mar 12) ▼The Energy 202: Students in Portland., Ore., want climate justice taught in every classroom - Washington Post -Climate and Environment (Mar 13)



# Articles on or after 3/15/2020: Economist, Eric Holthaus (The Correspondent), Washington Post - Climate and Environment, Grist Climate and Energy, Climate Change News - Science, Guardian - Climate Change, MIT - Greenhouse Gases, MIT - Climate, Climate Change News - Energy

Show All Summaries Hide All Summaries (Click a 'down arrow' on the left to view an article's summary)

Vandrew Bailey takes over as governor of the Bank of England - Economist (Mar 15)

VCoronavirus: China's economic slowdown curbs deadly air pollution - Climate Change News - Energy (Mar 16)

VGrounded - The impact of covid-19 on airlines | Business - Economist (Mar 15)

VSolar power has been growing for decades. Then coronavirus rocked the market. - Grist Climate and Energy (Mar 16)

VThe coronavirus is dangerous. But some experts wonder if bad air makes it worse. - Washington Post - Climate and Environment (Mar 15)

VThe U.K.'s lost seagrass meadows to be resurrected in climate fight - Grist Climate and Energy (Mar 15)

VWho's your climate champion? Sanders and Biden vied for the title at Sunday's debate - Grist Climate and Energy (Mar 16)

VWhy don't we treat climate change like an infectious disease? - Grist Climate and Energy (Mar 16)

## **Searching Articles**



iny of	f	Article Date: 0 L	ast Day 🔘 Last 2 Days 🌘 Last Week 🔘 Las	t Month	Last Year O Any O Oth	ner	
All of		Date Added: 0 L	ast Day 🖲 Last 2 Days 🔘 Last Week 🔘 Las	t Month 0	Last Year O Any O Oth	ner	
/ Adv	anced Se	arch					
		View Ar	ticles				
H	Record	1 of 106 PPI (to start the grid at a specific record, type th	ne record number at the left and press [Enter]				
	Туре	Title	Content Summary	Date	Organization	Info	Detail
	Article	Mine waste dams threaten the environment, even when they don't fail	Scars from large mining operations are	3/17/2020			Details
	Article	The US Built 13.3GW of Solar Last Year as the Residential Market	For just the second time, solar topped	-,,	Green Tech Media	_	Details
View	Article	UK's CO2 emissions have fallen 29% over the past decade	The UK's CO2 emissions fell by	3/17/2020	Skeptical Science		Details
View	Article	'The rich are to blame for climate change'	The rich are primarily to blame for the	3/16/2020	BBC	Info	Details
/iew	Article	Spanish Energy Sector Counts Blessings in Coronavirus Crisis	Weak power demand and delayed auctions	3/16/2020	Green Tech Media	Info	Details
/iew	Article	Despite 100% Renewables Legislation, Future of Puerto Rico's	The island remains far from meeting even	3/16/2020	Green Tech Media	Info	Details
/iew	Article	COVID-19 and climate change: A healthy dose of reality	It's too early to tell whether COVID-19	3/16/2020	Greenbiz	Info	Details
View	Article	Carbon diets: Meet the people living ultra low-carbon lifestyles and	We probably all know someone who has cut	3/16/2020	Carbon Brief	Info	Details
View	Article	Why don't we treat climate change like an infectious disease?	Schools are closed. Entire regions are	3/16/2020	Grist Climate and Energy	Info	Details
View	Articles*	Solar power has been growing for decades. Then coronavirus rocked the	As the coronavirus outbreak rages on,	3/16/2020	Grist Climate and Energy	Info	Details
/iew	Articles*	Elevated climate-related risks spur new approaches to doing business	Climate change could add around 20	3/16/2020	Greenbiz	Info	Details
/iew	Article	Investment vehicle underpins Germany's exit from coal	(Financial Times - Subsription required)	3/16/2020	Carbon Brief	Info	Details
View	Article	Who's your climate champion? Sanders and Biden vied for the title at	It only took 10 debates, a worldwide	3/16/2020	Grist Climate and Energy	Info	Details
/iew	Article	'I don't want my girls to miss out': life as a mother and provider in	For Mishti, running a boat to ferry	3/16/2020	Carbon Brief	Info	Details
	Article		Belfasttelegraph Search Dr Paul	3/16/2020	Carbon Brief	Info	Details
	Articles*		Belfasttelegraph Search The	-,,	Carbon Brief		Details
		2019 was bad year for floods and drought in England, say charities	Exclusive: conservation groups say	-,,	Carbon Brief	_	Details
		Amazon seeks to hire 100,000 to keep up with surge in orders	Amazon said Monday that it needs to hire				Details
	Article		If so, activists will realize that		Carbon Brief	_	Details
View	Article		Belfasttelegraph Search Sir David	3/16/2020	Carbon Brief	Info	Details

## Columns:

View	Click to open the article's Web page in another tab
Туре	If there is an "*" in the field, hovering your mouse over the field will show an image (or images) from the
	article
Title	If there is a hyperlink in the field, hovering your mouse over the field will show the entire title
Content	If there is a hyperlink in the field, hovering your mouse over the field will show more of the summary
Summary	
Date	Date of the article
Organization	If there is a hyperlink in the field, hovering your mouse over the field will show the entire name
Info	Hovering your mouse over the field will show more information about the article
Details	Click to view more information about the article (including a summary of up to 2,000 characters)

Solar

**Grid Edge** 

Storage

Wind

Trending

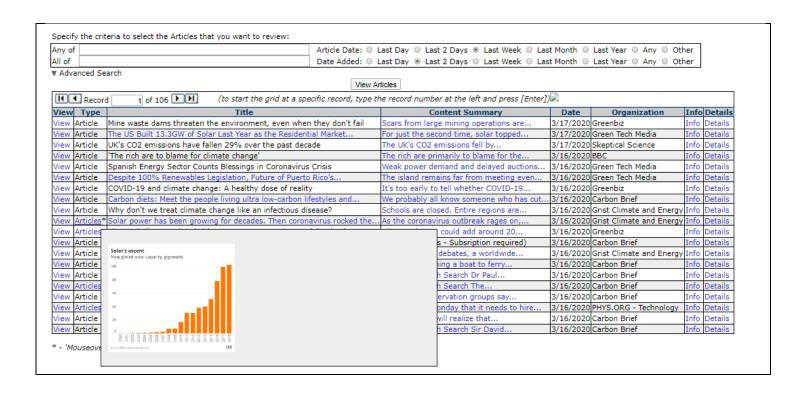
Podcasts Downloads

SOLAR

# The US Built 13.3GW of Solar Last Year as the Residential Market Regained Its Stride

For just the second time, solar topped all other generation sources in U.S. capacity additions last year according to SEIA and Wood Mackenzie.

KARL-ERIK STROMSTA | MARCH 17, 2020



ny of	Article Date: 0 L	Last Day 🔘 Last 2 Days 🖲 Last Week	<ul><li>Last</li></ul>	Month	Last Year O Any O Otl	her	
ll of	Date Added: 0 L	ast Day  Last 2 Days  Last Week	<ul><li>Last</li></ul>	Month ©	Last Year O Any O Otl	her	
Advanced Se	arch						
	View Ai	ticles					
Recor	d 1 of 106 🕨 🕦 (to start the grid at a specific record, type th	ne record number at the left and press [	Enter])				
iew Type	Title	Content Summary		Date	Organization	Info	Details
ew Article	Mine waste dams threaten the environment, even when they don't fail	Scars from large mining operations are		3/17/2020	Greenbiz	Info	Details
ew Article	The US Built 13.3GW of Solar Last Year as the Residential Market	For just the second time, solar topped		3/17/2020	Green Tech Media	Info	Details
ew Article	UK's CO2 emissions h			3/17/2020	Skeptical Science	Info	Details
ew Article	'The rich are to blame The US Built 13.3GW of Solar Last Year as the Resi	dential Market Bearined Ite Maie		3/16/2020	BBC	Info	Details
w Article	Spanish Energy Secto		ons	3/16/2020	Green Tech Media	Info	Details
ew Article	Despite 100% Renewa		en	3/16/2020	Green Tech Media	Info	Details
ew Article	COVID-19 and climate change: A healthy dose of reality	It's too early to tell whether COVID-19.		3/16/2020	Greenbiz	Info	Details
ew Article	Carbon diets: Meet the people living ultra low-carbon lifestyles and	We probably all know someone who has	s cut	3/16/2020	Carbon Brief	Info	Details
ew Article	Why don't we treat climate change like an infectious disease?	Schools are closed. Entire regions are	.	3/16/2020	Grist Climate and Energy	Info	Details
ew Articles*	Solar power has been growing for decades. Then coronavirus rocked the	As the coronavirus outbreak rages on,		3/16/2020	Grist Climate and Energy	Info	Details
ew Articles*	Elevated climate-related risks spur new approaches to doing business	Climate change could add around 20		3/16/2020	Greenbiz	Info	Details
ew Article	Investment vehicle underpins Germany's exit from coal	(Financial Times - Subsription required)	)	3/16/2020	Carbon Brief	Info	Details
ew Article	Who's your climate champion? Sanders and Biden vied for the title at	It only took 10 debates, a worldwide		3/16/2020	Grist Climate and Energy	Info	Details
ew Article	'I don't want my girls to miss out': life as a mother and provider in	For Mishti, running a boat to ferry		3/16/2020	Carbon Brief	Info	Details
ew Article		Belfasttelegraph Search Dr Paul		3/16/2020	Carbon Brief	Info	Details
ew Articles*		Belfasttelegraph Search The		3/16/2020	Carbon Brief	Info	Details
w Article	2019 was bad year for floods and drought in England, say charities	Exclusive: conservation groups say		3/16/2020	Carbon Brief	Info	Details
ew Articles*	Amazon seeks to hire 100,000 to keep up with surge in orders	Amazon said Monday that it needs to hi	re	3/16/2020	PHYS.ORG - Technology		Details
ew Article		If so, activists will realize that		3/16/2020	Carbon Brief	Info	Details
iew Article		Belfasttelegraph Search Sir David		3/16/2020	Carbon Brief	Info	Details

Any o	f	Article Date: 0 L	ast Day	Last 2 Days   Last Week Last	t Month	Last Year O Any O Otl	her			
All of		Date Added: 0 L	ast Day ®	Last 2 Days O Last Week O Las	st Month	Last Year O Any O Otl	her			
r Adv	anced Se	arch .								
		View Ar	ticles							
I	Record	of 106 (to start the grid at a specific record, type th	he record nu	mber at the left and press [Enter]						
	Type	Title		Content Summary	Date	Organization	Info	Details		
		Mine waste dams threaten the environment, even when they don't fail	Scars from	large mining operations are	3/17/2020			Details		
	Article	The US Built 13.3GW of Solar Last Year as the Residential Market		second time, solar topped		Green Tech Media	-	Details		
		UK's CO2 emissions have fallen 29% over the past decade	The UK's Co				-			
View	Article	'The rich are to blame for climate change'	The rich are	For just the second time, solar to	opped all of	ner generation courses in	115 6	anacity		
View	Article	Spanish Energy Sector Counts Blessings in Coronavirus Crisis W. Despite 100% Renewables Legislation, Future of Puerto Rico's		tor Counts Blessings in Coronavirus Crisis  Weak powe wables Legislation, Future of Puerto Rico's  Weak powe The island  Weak pow						
View	Article									
View	Article									
View	Article	Carbon diets: Meet the people living ultra low-carbon lifestyles and	We probabl							
View	Article	Why don't we treat climate change like an infectious disease?	Schools are		-,,					
View	Articles*	Solar power has been growing for decades. Then coronavirus rocked the	As the coro	navirus outbreak rages on,		Grist Climate and Energy	Info [	Details		
		Elevated climate-related risks spur new approaches to doing business		inge could add around 20	3/16/2020			Details		
		Investment vehicle underpins Germany's exit from coal	,	imes - Subsription required)	-,,	Carbon Brief	-	Details		
		Who's your climate champion? Sanders and Biden vied for the title at		: 10 debates, a worldwide		Grist Climate and Energy	Info (	Details		
View	Article	'I don't want my girls to miss out': life as a mother and provider in	For Mishti, I	running a boat to ferry	3/16/2020	Carbon Brief	Info (	Details		
	Article			raph Search Dr Paul		Carbon Brief	-	Details		
View	Articles*			raph Search The	· ·	Carbon Brief	-	Details		
View View	Article	2019 was bad year for floods and drought in England, say charities		conservation groups say		Carbon Brief	_	Details		
View View View		Amazon seeks to hire 100,000 to keep up with surge in orders		d Monday that it needs to hire		PHYS.ORG - Technology	_	Details		
View View View View	Articles*				10/46/0000	Contrar Daire	Info I	Season Health		
View View View View View			If so, activis	sts will realize that		Carbon Brief Carbon Brief	-	Details Details		

View: Click here to view the article

Title: The US Built 13.3GW of Solar Last Year as the Residential Market Regained Its Mojo

Date: 3/17/2020 12:01:00 AM

Text Date: Summary: None

For just the second time, solar topped all other generation sources in U.S. capacity additions last year, according to SEIA and Wood

Leaning in: Last year was the biggest on record for U.S. residential solar installations.

Solar topped natural gas and wind to claim a record share of new U.S. electric generating capacity last year, at nearly 40 percent, boosted by a vibrant residential sector that looks healthier than it has in years.2019 was a landmark year for the American power sector on several fronts. Wind crossed the 100-gigawatt threshold, and it overtook hydroelectric plants in total electricity generated. But solar stole the show, with four out of every 10 megawatts of capacity built last year represented by a PV panel.

All told, the country added 13.3 gigawatts of new solar last year, bringing the cumulative total to 76 gigawatts, according to the U.S. Solar Market Insight report, published quarterly by the Solar Energy Industries Association and Wood Mackenzie Power & Renewables.

Solar accounted for 39.8 percent of new U.S. generating capacity brought online last year, blowing past natural gas at 32 percent and wind at 27 percent. It's just the second time that solar was the leading source of new capacity, and the first since 2016.

It's hard to ignore the booming utility-scale market, which accounted for 8.4 gigawatts of last year's solar additions — and where the development pipeline now stands at a record 48.1 gigawatts. The large-scale market is underpinned by the proliferation of state renewables mandates, rising corporate demand and costs that continue to drop in spite of the Trump administration's solar import tariffs.

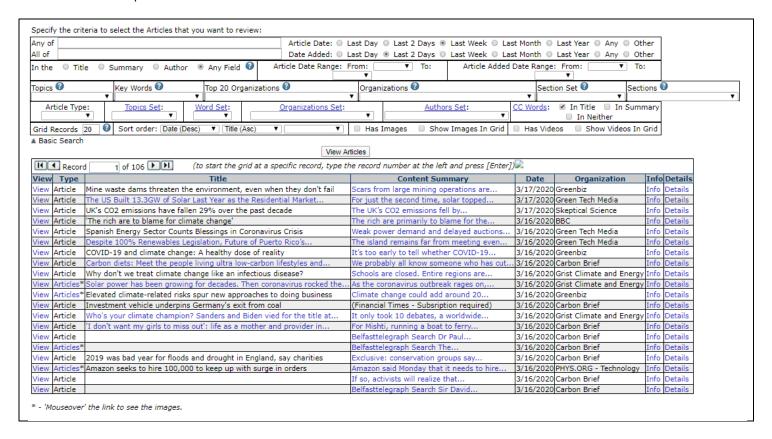
Solar power-purchase agreements ranged from \$16 to \$35 per megawatt-hour last year, the report said, spurring demand in existing hot spots like Texas as well as states where little solar has been procured in the past, such as Oklahoma and...

Organization: Green Tech Media

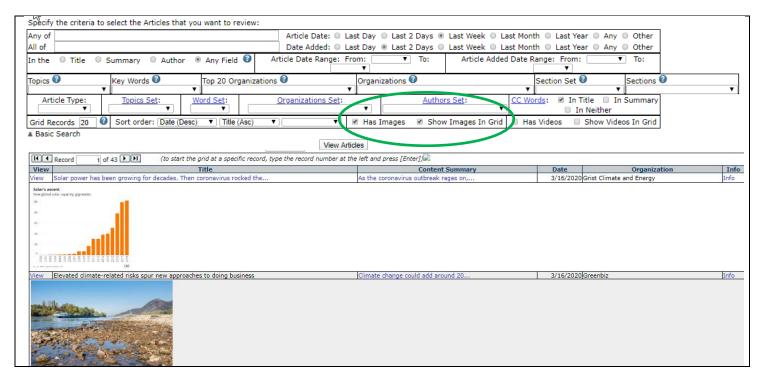
Article Type: Article

Date Added: 3/17/2020 1:09:56 AM

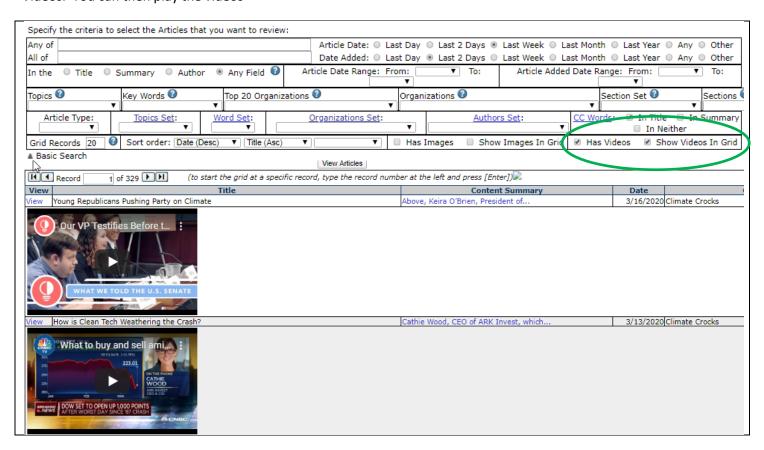
#### **Advanced Search** (click on the "down arrow" next to the text 'Advanced Search'

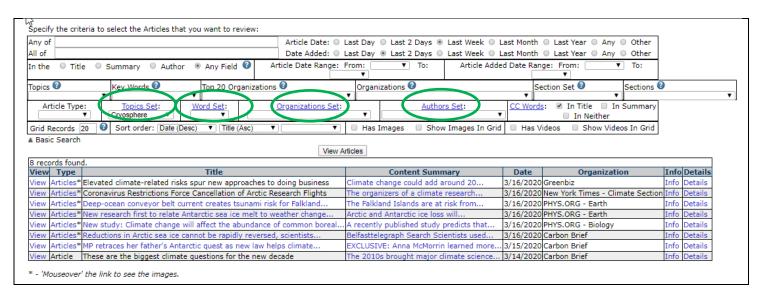


Check 'Has Images' and 'Show Images in Grid' then click 'View Articles' to display the images for only articles which have images



Check 'Has Videos' and 'Show Videos in Grid' then click 'View Articles' to display the images for only articles which have Videos. You can then play the videos





Click the links "Topic Set", "Word Set", "Organization Set", and "Author Set" to see the names and contents of the sets (note - these will be periodically updated and added to):

## **Topic Sets**

b

#### Climate Science

Acidification Feedback Sea Level Rise Albedo Paleoclimate Temperature Climate Sensitivity Radiative forcing Tipping point

#### Cryosphere

Antarctic Greenland Sea ice Arctic Permafrost Snow Cover

#### **Key Topics**

Acidification Climate Sensitivity Albedo Deforestation Antarctic Extreme Weather Arctic Feedback Carbon sequestration Global Warming Climate Disruption hotter future

Methane Paleoclimate Permafrost Radiative forcing Sea ice Sea Level Rise

Snow Cover Temperature Tipping point

#### Word Sets

#### Climate

Atmosphere Climate Change CO2 Droughts

Global Warming Heat Wave Methane Oceans

Paleoclimate Permafrost Radiative forcing Sea ice

Sea Level Rise Temperature Tipping point Wildfires

# **Organization Sets**

#### **Blogs**

**Huffington Post** Climate Crocks DeSmogBlog PHYS.ORG

Skeptical Science

VOX

#### Bruce's List

Climate Change News - Energy Climate Change News - Science Grist Climate and Energy Guardian - Climate Change Washington Post - Climate and Environment

Economist MIT - Climate Eric Holthaus (The Correspondent)

MIT - Greenhouse Gases

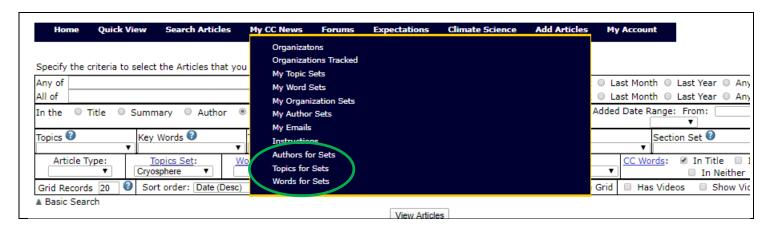
#### Colleges and Universities - Climate

MIT - Carbon MIT -Climatechange MIT - Climate Yale Climate Connections - Ecosystems MIT - Greenhouse Gases Yale Climate Connections - Energy

Yale Climate Connections - Science

#### **Author Sets** Authors with more than 100 articles Adam Vaughan Carol Linnitt Jillian Ambrose Mike Gaworecki CHRIS MOONEY Natasha Geiling Adam Vaughan Joe Rom Akshat Rathi Peter Sinclair Damian Carrington Joe Romm Reuters Editorial Andrew Freedman David Roberts Josh Gabbatiss Andrew Revkin Emily Gosden Julie Dermansky Richard Littlemore Emily Murgatroyd Justin Mikulka Ross Gelbspan Ben Jervey Bill Miller Farron Cousins Katie Valentine Samantha Page **Brad Plumer** Sharon Kelly Graham Readfearn Kevin Grandia Brendan DeMelle James Hoggan Kyla Mandel Steve Horn Madeleine Cuff Think Progress Brendan Montague James Murray

#### **Topic Sets, Word Sets, and Author Sets**



#### Topics which can be included in 'Topics Sets' The "Topics" are currenty just a subset of "key words" and all searching is simply done based on the key word values. In the future, selection criteria will be designed to flag arcitles related to a specific topic. For example, "Extreme Events" might include articles which mention actual hurricanes, droughts, forest fires, etc., thus making it much easier for user to both search the database to receive emails related to a specific interest. 100% Renewable Climate Disruption Global Warming Radiative Forcing Acidification Climate Sensitivity Greenland Sea ice Greta Thunberg Sea Level Rise Albedo Climate Solutions Antarctic Deforestation hotter future Snow Cover Arctic Extreme Weather Methane Temperature Carbon sequestration Feedback Paleoclimate Tipping point Geoengineering Permafrost carbon tax

#### Words which can be included in 'Words Sets'

There are thousands of distinct words in the articles in the My CCNews database. In order to reduce the number of words that can be selected on a "selection form", only about 150 "key words" are listed. A future enhancement will allow the user to enter names of specific Words in an "Words selection set".

Articles with any of these "key words" "flagged" as such to make it easier for the user to view just artiles which are related to climate change. When the "Search Articles" search form is displayed, only articles with a key word in the title are originally displayed. The "Advanced Search" option can be used to change this.

.0C .5C 100% Renewable 99 Percent Movement Acidification Air Pollution Albedo

Acidification
Air Pollution
Albedo
Amazon
Antarctic
Arctic
Atlantic
Atmosphere
battery
Big Oil
Biofuels
Cap And Trade
Carbon
carbon credits
Carbon cycle
carbon dioxide
Carbon Emissions

Clean Energy Economy Clean Power Plan Climate Climate Change Climate Change Denier Climate Disruption Climate March Climate Science Climate Sensitivity Climate Solutions

Carbon sequestration

carbon tax

CH4

coal Coal-free Coral Dakota Access Pipeline

Dakota Access Pipeline
Deforestation
Disaster
doomed
Drought
Earth Day
Electric Car
Electric grid and storage

Electricity
emissions
Energy
Energy Efficiency
Environment
existential crisis
Extinction Rebellion
Extinction Rebels
extreme rainfall
Extreme Weather
Feedback
flood
Food Insecurity

Forest
Fossil Fuel
Fracking
Geoengineering
GHG
Glacier
Global Boiling
global catastrophe
Global Health
Global Warming
Green Building

Diana Mads

drew Ward

Dino Grandoni

Green New Deal greener life Greenhouse

Greenhouse Gas Emissions Greenland Greenwashing Heat Wave hotter future Hottest Hurricane Irene Hurricane Katrina Hurricane Matthew Hurricane Sandy IPCC Keystone XL Mangroves

NASA Natural Gas NOAA Nuclear Nuclear energy Ocean ocean carbon Ocean circulation Ocean current Offshore Drilling Oil And Gas Oil Spill Paleoclimate Paris Agreement Permafrost Polar Vortex

March For Science

Methane

Migration

Radiative Forcing renewable Renewable energy Roadmap save life on Earth save the earth save the world Sea ice Sea Level Rise Sequestration Snow Cover Soil Carbon Solar Searce

Solar
Solar Energy
Solar Power
Sun
tarsands
Temperature
Tesla
Tipping point
Tragedy of the Commons
Transportation

tree-planting drones uptake Warming Weather Wildfire Wind Wind Energy Wind farms Winter zero-emission

#### Authors which can be included in 'Author Sets'

There are almost 10,000 authors for the articles in the My CCNews database. Since this is too many to include on a "selection form", only those who have authored more than 100 articles (about 150) are listed on the "selection form". A future enhancement will allow the user to enter names of specific authors in an "author selection set".

nny Bairstow

Adam Vaughan Akshat Rathi Alister Doyle Amy Harder Andrew Freedman Andrew Revkin Andrew Ward Anili Raval Anne Landman Arthur Neslen Ashley Braun Ben Adler Ben Jervey Ben Webster bert McSweeney Bill McKibben

Ben Jervey
Ben Webster
bert McSweeney
Bill McKibben
Bill Miller
Brad Plumer
Brendan DeMelle
Brendan Montague
Brian Kahn
Brian Resnick
BusinessGreen staff
Carol Linnitt
Chelsea Harvey
Chloe Farand
CHRIS MOONEY
Chris Rose
Clayton Aldern
Daisy Dunne
Damian Carrinaton

Dana Nuccitelli

Darryl Fears

David Roberts

David Suzuki

David Sheppard

Ed Crooks Ed Kina Emily Atkin Emily Gosden Emily Murgatroyd Emma Gilchrist Emma Pullman Eric Holthaus Farron Cousins Fiona Harvey gan Darby George Monbiot Glen Peters Graham Readfearn ie Herzog inson Meyer Itai Vardi iyanka Shrestha James Hoggan James Murray Jason Samenow Jeremy Deaton Jeremy Jacquot 1illian Ambrose Jocelyn Timperley Joe Rom Joe Romm John Abraham John Kemp John Mashev Jonathan Watts Jonny Bairstow Josh Gabbatiss

Judith Lavoie Julia Belluz Julie Dermansky Juliet Eilperin Justin Mikulka Karl Mathiesen Katharine Murphy Katie Herzog Katie Valentine Kevin Grandia Kilev Kroh Kyla Mandel LG l McKibben Larry Buhl Laurel Whitney Leslie Hook Liam Denning Lisa Cox Lisa Friedman ΜD Madeleine Cuff Mark Hand Mat Hope Matthew Taylor

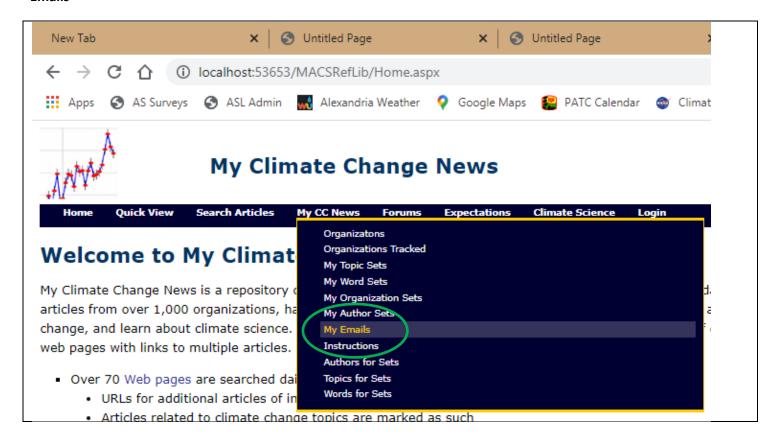
Lisa Friedman
M D
Madeleine Cuff
Mark Hand
Mat Hope
Matthew Taylor
Megan Darby
Michael Holder
Michael Mann
Michael Slezak
Mike Gaworecki
Miranda Green
multiple author s
Natasha Geiling
Nexus Media
Nick Butler

Oliver Milman Page van der Linden Paul Krugman Peter Sinclair Phil Plait Pilita Clark Privanka Shrestha Rebecca Leber Reuters Editorial rge Monbiot Richard Black Richard Littlemore Robert McSweeney Robin Pagnamenta Robinson Mever Ross Gelbspan Ryan Koronowski Samantha Page Sarah Pullman Sharon Kelly shat Rathi Simon Evans Sophie Yeo Steve Horn

Think Progress
Thomson Reuters Foundation
Tim McDonnel
Tim McDonnell
Timothy Cama
Timothy Gardner
TJ Scolnick
Umair Irfan
Zeke Hausfather

Sylvia Pfeifer

#### **Emails**



#### **Emails**

■"Email Set" records allow you specify the emails that will be sent to you on a periodic basis. The MyCCNews system includes several "sets" that you can use to copy to create your own customized specification.

Click the "View" link to see the specifications for the email

Click the "Edit" link to make changes to your specifications

Click the "Copy" link to use the corresponding "set" as a template for a new "set"

Click the "Rename" link to give the "set" another name

Click the "Delete" link to delete "set" (you will be asked to confirm the delete)

Click the "Display" link to view the email contents that would be sent with articles added as in the last day or so

Click the "New" button to create new email specification

#### Email Specifications

Selection Criteria - be sure to select an item from the pulldown list if you want to only include articles related to climate change Max Summary Length - specifies the maximum number of characters in the Article Summary to include in the email (the maximum value is 2000)

Max Article Date Age - articles other than for the current day or so are often added. This allows you to specify how "new" these articles must be to be included in the email

Order By - the default is "Title"

(additional specifications to be added later)

Note the the current words included in the "system set" will likely change before the final version is released (which will likely be at the end of August 2019.

the end of August 2019.						
Set Name						
All - titles and dates only	View	Edit	Copy	Rename	Delete	Display
All Recent Articles	View	Edit	Copy	Rename	Delete	Display
Blogs with full images and full summary	View	Edit	Copy	Rename	Delete	Display
Key Topics - titles, authors, and dates	View	Edit	Copy	Rename	Delete	Display
Major authors with a short summary	View	Edit	Copy	Rename	Delete	Display
Major newspapers with images and short summary	View	Edit	Сору	Rename	Delete	Display
Preview From Link	View	Edit	Сору	Rename	Delete	Display
		Maria	•	•		•

New

# **View Email: All Recent Articles**

Email Frequency	Daily	Email Time	6 AM	
Start Date	4/29/2019	End Date		
Active	Yes	Last Email Sent Date	3/18/2020 8:30:55 AM	
Selection Criteria	Title Contains CC Words	·	TitleContainsCCW	ords
Include Image	No			
Include Title	Yes			
Include Author	Yes			
Include Organization	Yes			
Include Date	Yes			
Include Summary	No	Max Summary Length	100	
Order By	Title	Max Article Date Age	10	
Topics				
Words				
Organizations				
Authors				
Date Added	6/5/2019	Date Updated	6/5/2019	
		Done		

# **Edit Email: All Recent Articles**

Email Frequency	Daily ▼	Email Time	6 AM ▼
Start Date	4/29/2019	End Date	
Active	✓	Last Email Sent Date	3/17/2020
			12:34:09 PM
Selection Criteria	Title Contains CO	C Words ▼	
Include Image			
Include Title	✓		
Include Author	✓		
Include Organization	✓		
Include Date	✓		
Include Summary		Max Summary Length	100
Order By	Title ▼	Max Article Date Age	10
Topics		▼	
Words	▼		
Organizations		▼	
Authors		▼	·
			Save Cancel

# 'The rich are to blame for climate change' - BBC · Mar 17 Read more ... 'Climate hypocrites': UK Export Finance accused of failing to consider climate risks - Carbon Brief · Mar 17 Read more ... 'I don't want my girls to miss out': life as a mother and provider in climate-hit Bangladesh - Carbon Brief · Mar 16 Read more ... 'Sustainable intensification' of cropping systems good for farmers, environment - PHYS.ORG - Biology · Mar 13 Read more ... 2019 was a record year for US solar power - Carbon Brief · Mar 18 Read more ... 2019 was bad year for floods and drought in England, say charities - Carbon Brief · Mar 16 Read more ... 2020 SkS Weekly Climate Change & Global Warming Digest #11 - Skeptical Science · Mar 15 Read more ... 4 astonishing signs of coal's declining economic viability - VOX -Environment · Mar 14 Read more ... A Faltering Fracking Industry, on the Verge of a Bailout, Mixes Patriotism and Oil in the Permian - DeSmogBlog · Mar 17 Read more ...

A faltering fracking industry, on the verge of a bailout, mixes patriotism and oil in the Permian - Carbon Brief - Mar 17 Read more ...

Actual Email (this will be changed to allow the article summary to be "expanded" on a cell phone)

From: To:	Info@Chesdata.com bruce@chesdata.com				
Cc: Subject:	CCNewsSearch Daily Email for 3/17/2020 - All Recent Articles				
'The	'The rich are to blame for climate change' - BBC · Mar 16 Read more				
'I do	'I don't want my girls to miss out': life as a mother and provider in climate-hit Bangladesh - Carbon Brief · Mar 16 Read more				
'Sus	'Sustainable intensification' of cropping systems good for farmers, environment - PHYS.ORG - Biology · Mar 13 Read more				
'Mix	ed feelings' for retired GP as Extinction Rebellion protest case dropped - BelfastTelegraph.co.uk - Carbon Brief · Mar 16   By Tom Wilkinson, PA Read more				
`Ten	s of thousands' of children skip school for climate strike protest - BelfastTelegraph.co.uk - Carbon Brief · Mar 16   By Mike Bedigan, PA Read more				
2019	9 was bad year for floods and drought in England, say charities - Carbon Brief · Mar 16 Read more				
2020	O SkS Weekly Climate Change & Global Warming Digest #11 - Skeptical Science · Mar 15 Read more				
4 as	tonishing signs of coal's declining economic viability - VOX -Environment · Mar 14 Read more				
Ama	zon seeks to hire 100,000 to keep up with surge in orders - PHYS.ORG - Technology · Mar 16 Read more				
Are	cruise ships in deep water over air pollution? - BBC · Mar 11 Read more				
Are	Fires a Climate Wake-Up Call? - WSJ - Carbon Brief · Mar 16 Read more				
Atte	nborough: We should listen closely to citizens' assembly on climate - BelfastTelegraph.co.uk - Carbon Brief · Mar 16   By Emily Beament, PA Environment Correspondent				
Aust	rralia's Exported Coal Fuels China's CO2 Deluge - WSJ - Carbon Brief · Mar 16 Read more				

#### **Expectations**



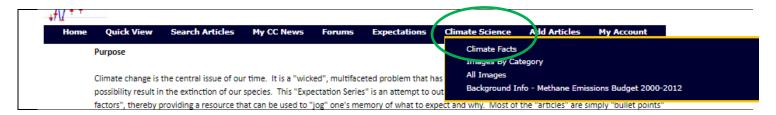
Climate change is the central issue of our time. It is a "wicked", multifaceted problem that has the potential to cause the collapse of our civilization and possibility result in the extinction of our species. This "Expectation Series" is an attempt to outline what we might expect from some of the major "climate factors", thereby providing a resource that can be used to "jog" one's memory of what to expect and why. Most of the "articles" are simply "bullet points" with detailed references, allowing the reader to quickly understand the basis of an "expectation". The articles should be viewed as a "work in process" as I will be revising them frequently as new material becomes available.

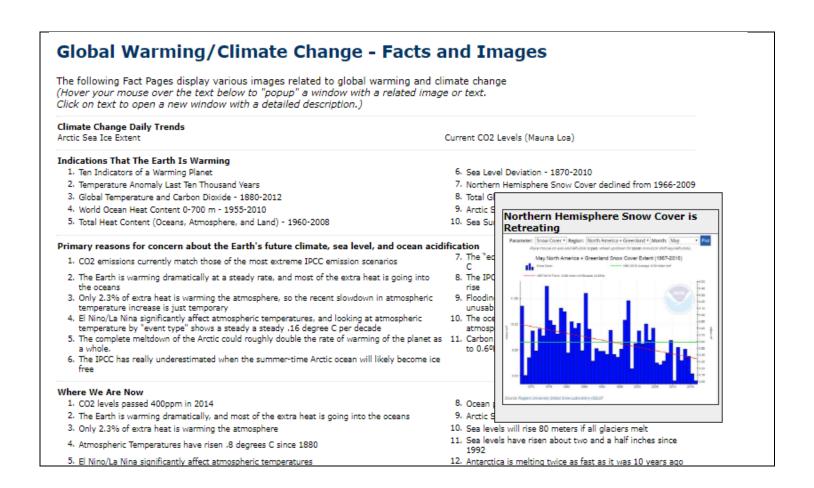
The "Expectation Series" currently contains the following articles:

Clim	Climate Factors the Determine the Expected Temperature Increase					
1	Expectation Questions	What are the main questions that need to be answered to determine if world governments will likely be willing to fund the removal of CO2 from the atmosphere at the scale needed to				
		avoid serious climate disruption				
2	Current Situation	Based on likely anthropogenic GHG emissions and climate feedbacks, we are almost certainly headed towards a "hothouse Earth" unless many gigatons of carbon are removed annually from the atmosphere				
	Anthropogenic CO2 Emissions	Global CO2 emissions from fossil fuels will likely remain the same through 2050 at about 10 GTC/year and atmospheric CO2 could reach 480 PPM by 2050				
4	Natural Emissions	Cumulative emissions through 2100 from natural feedbacks will likely be in the range of 120-200 GTC (not including methane from methyl hydrates).				
5	Methane	"Global warming triggered by the massive release of carbon dioxide [from permafrost] may be catastrophic, but the release of methane from [methyl] hydrate may be apocalyptic".				
6	Global Warming Feedbacks	The reaction of clouds to a warming atmosphere has been one of the major sources of uncertainty in estimating exactly how much the world will heat up from the accumulation of greenhouse gases				
7	CO2 Uptake	If we can limit net emissions to about 250 GTC, the ocean and biosphere will absorb all of the emitted CO2 and atmospheric CO2 will eventually return to the current level				
8	Climate Sensitivity	Recently it has been demonstrated that the models that best capture current conditions have a mean value of 3.7°C compared to 3.1°C by the raw model projections				
Tem	Temperature Increase					
9	Temperature Increase	Likely increases: 1.5°C by 2030; 2.0°C by 2050; 4-5°C by 2100				
10	Equilibrium Temperature	Tables were created to show the expected equilibrium temperature for various combinations				
	Based on CO2 Emissions	of values for CO2 emissions, non-CO2 radiative forcing in2100, and climate sensitivity.				
CO2	CO2 Emission Budgets					
11	CO2 Emissions Budget	There are several problems with presenting the IPCC's carbon budget in terms of "there is an XX% chance of meeting the NN° C temperature target if total emissions are less than MM GTC between now and 2100".				
12	CO2 Emissions Budget - Alternative Analysis	We essentially have exhausted the CO2 budget for 1.5°C and 2.0°C				
Carb	Carbon Dioxide Removal Costs					
13	CDR Costs	"Even if climate geoengineering techniques [,which includes carbon dioxide removal,]were				

		ever actively pursued, and eventually worked as envisioned on global scales, they would very unlikely be implementable prior to the second half of the century".			
14		Using Hansen's \$450/tC as a rough estimate, we, in the U.S., should be spending about \$1,900 per person per year (about \$700 billion total) for the next 30-50 years to capture and sequester carbon			
0.1.		'			
Otne	Other Consequences of Global Warming and CO2 Emissions				
15	Climate Change	It is quite possible that global warming will cause significant shifts in the Earth's entire			
		atmospheric circulation patterns, which might lead to massive crop failures in the US.			
16	Sea Level Rise	We could have between one and two meters of sea level rise by 2100			
17	Ocean Acidification	Oceans could lose up to \$1 trillion in annual value by 2100 due to acidification			

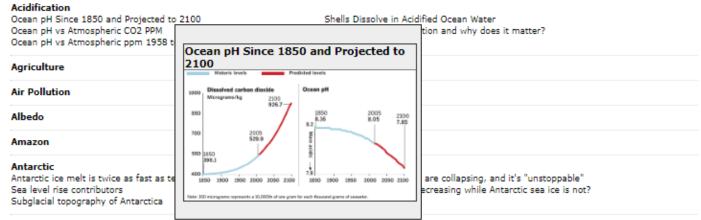
#### **Climate Science**





# Global Warming/Climate Change - Facts and Images

The following Fact Pages display various images related to global warming and climate change (Hover your mouse over the text below to "popup" a window with a related image or text. Click on text to open a new window with a detailed description.)



#### Arctic

Arctic and Global Temperature Anomoly
Arctic and Global Temperature Anomoly - Cowtan & Way
Arctic Ice Volume in September - 1979-2013
Arctic Sea Ice Death Spiral
Arctic Sea Ice Extent
Arctic Sea Ice Extent Anamoly - Nov 2016
Arctic Sea Ice Minimum and Maximum Extents (compared to the averages)

averages) Arctic sea ice volume - 1980-2012 Arctic Sea Ice Volume in June - 1980-2012 Artcic sea ice extent for the last 1,450 years Artcic Sea Ice Extent Through Nov 2016

Carbon from permafrost soils could add as much as 0.4°F to 0.6°F of warming by 2100 Projected Arctic Sea Ice Decline

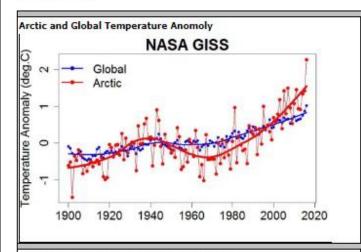
Some Large Amplifying Feedbacks

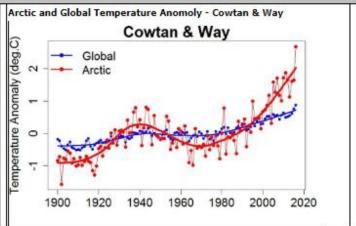
Why is Arctic sea ice decreasing while Antarctic sea ice is not?

# Arctic

This Fact Page displays text and images related to global warming and climate change (Hover your mouse over the text below to "popup" a window with a related text. Click on the text or image to open a new window with a detailed description.)

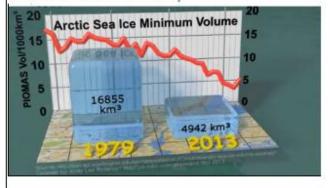
Show Details

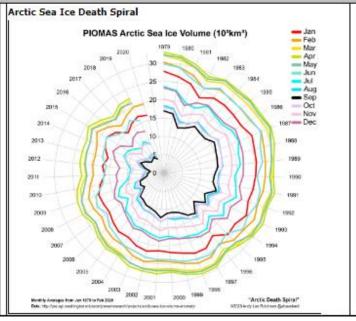




#### Arctic Ice Volume in September - 1979-2013

As a result of the of the increased Arctic temperatures, the Arctic Ocean is losing very significant amounts of summertime ice volume (ice volume is a better indicator of the melting of the ice in summertime than ice area)





# **Global Warming/Climate Change Images**

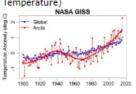
Annotated Global Average 1850- Antarctic ice melt is twice as 2017 (TempAnnotated AnnotatedGlobalAverage1850\_2017)

(temperature)

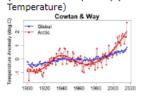
fast as ten years ago (AntarcticMeltFaster ) (Antarctic Sea Temperature)

J-147

**Arctic and Global Temperature** Anomoly (ArtcicGlobalTemp ) (Arctic



**Arctic and Global Temperature** Anomoly - Cowtan & Way (ArtcicGlobalTempCont ) (Arctic



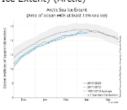
Arctic Ice Volume in September -1979-2013 (AMinIce

ArcticMinIceVolume) (Arctic)

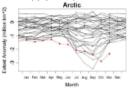
Arctic Sea Ice Death Spiral (ADS Arctic Sea Ice Extent (ASIE Arctic Sea Arctic Ice Death Spiral) (Arctic)



Ice Extent) (Arctic)



Arctic Sea Ice Extent Ananoly - Nov 2016 ( ) (Arctic)





#### The Global Methane Budget 2000-2012 Abstract ▲ Copyright statement ▲ 1 Introduction ▲ 2 Methodology ▲ 2.1 Processing of emission maps ▲ 2.2 Definition of the boxplots ▲ 2.3 Definition of regions and source categories ▲ 3 Methane sources and sinks ▲ 3.1 Anthropogenic methane sources A 3.1.1 Reported global inventories Total anthropogenic methane emissions ▲ 3.1.2 ▲ 3.1.3 Methane emissions from fossil fuel production and use Coal mining **▲** 3.1.3.1 **▲** 3.1.3.2 Oil and natural gas systems ▲ 3.1.3.3 Shale gas ▲ 3.1.4 Agriculture and waste ▲ 3.1.4.1 Livestock: enteric fermentation and manure management **▲** 3.1.4.2 Waste management ▲ 3.1.4.3 Rice cultivation ▲ 3.1.5 Biomass and biofuel burning ▲ 3.1.5.1 Biomass burning **▲** 3.1.5.2 Biofuel burning

#### The Global Methane Budget 2000-2012

- Abstract
- ▲ Copyright statement
- ▲ 1 Introduction
- ▲ 2 Methodology
- ▲ 2.1 Processing of emission maps
- ▼ 2.2 Definition of the boxplots

Most budgets are presented as boxplots, which have been created using routines in IDL language, provided with the standard version of the IDL software. The values presented in the following are calculated using the classical conventions of boxplots including quartiles (25 %, median, 75 %), outliers, and minimum and maximum values (without the outliers). Outliers are determined as values below the first quartile minus 3 times the interquartile range or values above third quartile plus 3 times the interquartile range. Identified outliers (when existing) are plotted as stars on the different figures proposed. The mean values are reported in the tablesand represented as ">+" symbols in the figures.

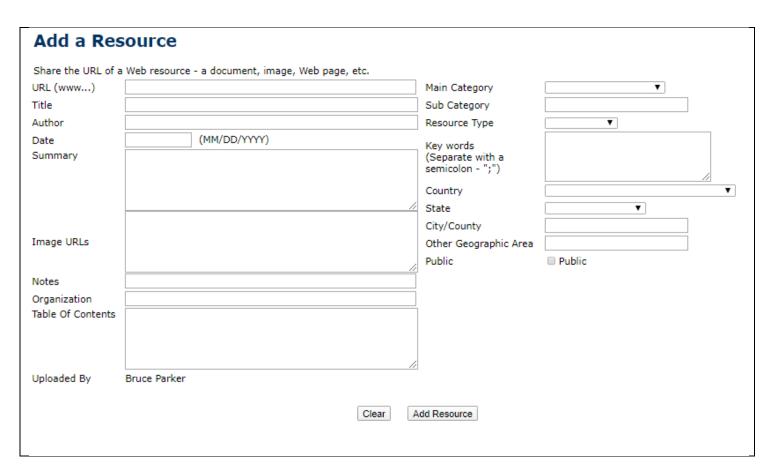
- ▲ 2.3 Definition of regions and source categories
- A 3 Methane sources and sinks
- ▲ 3.1 Anthropogenic methane sources
- ▲ 3.1.1 Reported global inventories
- ▲ 3.1.2 Total anthropogenic methane emissions
- ▼ 3.1.3 Methane emissions from fossil fuel production and use

Most of the methane anthropogenic emissions related to fossil fuels come from the exploitation, transportation, and usage of coal, oil and natural gas. This geological and fossil type of emission (see natural source section) is driven by human activity. Additional emissions reported in this category include small industrial contributions such as production of chemicals and metals, and fossil fuel fires. Spatial distribution of methane emissions from fossil fuel is presented in Fig. 3 based on the mean gridded maps provided by EDGARv4.2FT2010 and GAINS over the 2003–2012 decade.

Global emissions of methane from fossil fuels and other industries are estimated from three global inventories in the range of 114–133 Tg CH<sub>4</sub> yr<sup>-1</sup> for the 2003–2012 decade with an average of 121 Tg CH<sub>4</sub> yr<sup>-1</sup> (Table 2), but with a large difference in the rate of change depending on inventories. It represents on average 34 % (range 32–39 %) of the total global anthropogenic emissions.

#### **Adding Articles**





Or, send an email to url@chesdata.com with the title as the subject and the URL as the body