

























Carbon Removal Corporate Action Tracker

Institute for Carbon Removal Law and Policy
American University

Please email icrlp@american.edu if you have other interesting examples of carbon negative or carbon-neutral-with-carbon-removal pledges.
To read more about the Action Tracker, visit our blog.



Flag	Sector	Pledge Date	Year	Owner	Commitment	CDR Methods	Commitment Link	Media Coverage
#REF!	Agriculture	03/30/2020	#REF!	Archer Daniels Midland Co	ADM announced a new plan to reduce its absolute gre	Archer Daniels Midland Company (NYSE: ADM)	Archer Daniels Midland Pledge	
#REF!	Agriculture		Loading...	Olam Group	Race to Zero: Net Zero 2050 - Commit to achieve net	Olam has cited CCS-based removals such as	Olam Pledge	
#REF!	Architecture and Design	08/02/2021	#REF!	Deceen	Deceen is committing to becoming a net-zero busines	Deceen is currently investigating all of the sources	Deceen Pledge	
#REF!	Automotive	09/07/2021	#REF!	Audi	By 2025, the Volkswagen Group wants to reduce the	Audi has paid Climeworks to capture and remove	Audi Pledge	New York Times Coverage
#REF!	Aviation	09/13/2021	#REF!	Asia Pacific Airlines	The Association of Asia Pacific Airlines (AAPA)	ICAO Carbon Offsetting and Reduction Scheme	AAPA Pledge	
#REF!	Aviation	04/21/2021	#REF!	Alaska Airlines	Alaska Airlines today announced its commitment and	Due to aviation being one of the most difficult	Alaska Airlines Pledge	
#REF!	Aviation	12/10/2020	Loading...	United Airlines	United is pledging to become 100% green by	United intends to make a multimillion-dollar	United Pledge	
#REF!	Aviation	02/17/2020	Loading...	Delta Airlines	Delta Air Lines has committed \$1bn over the next	The airline will continue to focus on the removal	Delta Pledge	Forbes Magazine
#REF!	Aviation	01/15/2020	#REF!	Etihad Airways	Etihad committed to a minimum target of zero net	"The global focus on the environment and the	Etihad Pledge	Business Travel News
#REF!	Aviation	01/06/2020	Loading...	JetBlue	JetBlue will offset carbon dioxide emissions from jet	JetBlue will partner with Carbonfund.org and	JetBlue Pledge	BusinessWire
#REF!	Aviation	11/19/2019	Loading...	Easy Jet	Easy Jet committed to net-zero carbon flights by	Easy Jet will offset the carbon from the fuel used	Easy Jet Pledge	CNN Business
#REF!	Aviation	11/11/2019	#REF!	Qantas Airways	The Qantas Group will reach net-zero carbon	Existing projects benefiting from the offsets	Qantas Pledge	Reuters
#REF!	Aviation	10/01/2019	Loading...	British Airways	British Airways has announced plans to offset the	The carrier says it will invest in verified carbon	British Airways Pledge	Atlanta Business Chronicle
#REF!	Aviation	03/15/2021	Loading...	Air Canada	Air Canada has a goal to have all global operatons	Air Canada plans to shift to sustainable air fuel,	Air Canada Pledge	
#REF!	Aviation	07/27/2021	Loading...	Loading...			BAE Systems Pledge	Energy Live News
#REF!	Construction	04/22/2021	Loading...	BNBuilders	BNBuilders announced clean construction targets for	They will advocate for alternative methods of	BNBuilders Pledge	
#REF!	Consulting	09/01/2020	Loading...	Boston Consulting Group	BCG committed to net-zero climate impact by 2030;	BCG will remove its remaining emissions by	BCG Pledge	Forbes Magazine
#REF!	Education	05/01/2021	#REF!	Australian National University	ANU has announced the Below Zero Initiative,	Carbon sequestration: Developing and	ANU Pledge	
#REF!	Energy	04/19/2021	Loading...	San Diego Gas & Electric	Building on the sustainability strategy it released last	The company plans to employ carbon capture and	San Diego Gas & Electric Pled	
#REF!	Energy	03/04/2021	#REF!	Chevron	Chevron Corporation, Schlumberger New Energy,	The BECCS plant will convert agricultural waste	Chevron Pledge	BioMass Magazine
#REF!	Energy	10/13/2020	#REF!	Jera	Jera pledged to achieve zero carbon emissions by	Jera aims to eliminate its carbon emissions and	Jera Pledge	Bloomberg Quint
#REF!	Energy	11/02/2020	Loading...	Equinor	Equinor climate ambitions?	Net-zero emissions requires a well-functioning	Equinor's Pledge	
#REF!	Energy	05/27/2020	Loading...	Southern Company	Southern Company moved to a long-term	The company will continue to reduce GHG	Southern Company's Pledge	GreenBiz
#REF!	Energy	05/05/2020	#REF!	Total S.A.	Total has a new climate ambition to become net-zero	Total is committed to reducing its carbon	Total Pledge	World Oil Magazine
#REF!	Energy	04/16/2020	#REF!	Royal Dutch Shell	Royal Dutch Shell has committed to being net-zero	Shell plans to offset its own emissions by trapping	Royal Dutch Shell Pledge	Carbon Brief
#REF!	Energy	02/24/2020	Loading...	Consumers Energy	Consumers Energy announced a goal to achieve net-	"Strategies such as carbon capture and	Consumers Energy Pledge	Cision - PR Newswire
#REF!	Energy	02/12/2020	#REF!	BP	BP has pledged to reach net-zero across BP's	BP plans to achieve their pledge through CCUS	BP Pledge	
#REF!	Energy	12/01/2019	Loading...	Repsol	Repsol announced a commitment to net-zero	Repsol said it would pursue a number of measures	Repsol Pledge	
#REF!	Energy	09/24/2019	Loading...	NRG Energy	NRG Energy has pledged to have net-zero emissions	NRG Energy has stated that CCS (carbon capture	NRG Energy Pledge	
#REF!	Energy	09/17/2019	Loading...	Duke Energy	Duke Energy announced an updated climate strategy	"Getting to net-zero carbon emissions, while	Duke Energy Pledge	
#REF!	Energy	05/20/2019	Loading...	Xcel Energy	Xcel Energy has committed to having net-zero	Xcel is still in the process of determining how it	Xcel Energy	
#REF!	Energy	03/23/2021	#REF!	Southern California Gas Company	SoCalGas has a carbon neutrality goal for 2045 in	By 2045, SoCalGas plans to have net-zero energy	SoCalGas Pledge	CalMatters on SoCalGas C
#REF!	Energy	01/13/2021	#REF!	Occidental Petroleum	To implement a Net Zero Energy Cycle which	This cycle starts with capturing CO2 from the	https://www.osy.com/OurBus	https://apnews.com/artic
#REF!	Energy	08/12/2021	Loading...	ExxonMobil	ExxonMobil has launched the Low Carbon Solutions	It was the first company to capture more than 120	ExxonMobil Pledge	Forbes Magazine Article
#REF!	Energy	05/27/2021	#REF!	Eni UK	Decarbonisation is structurally embedded in Eni's	Under the agreement, Eni will develop and	Eni Pledge	Reuters Magazine Article
#REF!	Energy	08/15/2019	#REF!	France's Total	Total aspires to become a major player in CCUS	Its membership reflects the center's growing	Total's Pledge	Reuters Magazine Article
#REF!	Energy	11/11/2020	#REF!	ADNOC (UAE)	ADNOC and Total will jointly explore opportunities	In the area of CCUS, the companies will further	ADNOC Pledge	CNBC News
#REF!	Energy	08/26/2021	#REF!	China National Petroleum Corp.	CNPC publishes only its Scope 1 and 2 greenhouse	CNPC focuses on carbon capture, utilization, and	CNPC Pledge	CSIS Analysis of Chinese
#REF!	Energy	08/27/2021	#REF!	Linde	Amidst an international focus on achieving net-zero	Initiatives include developing industry-leading	Linde Pledge	Gas World Article
#REF!	Energy	11/16/2020	Loading...	Aker Solutions	Aker Solutions aims to generate about half of its	Lower the carbon emissions from their	Aker Solutions Pledge	OE Digital News
#REF!	Energy	21(updated 6/4	#REF!	Drax Global	The UK needs negative emissions technologies to	With an effective negative emissions policy and	Drax Pledge	Energy Monitor AI Covera
#REF!	Energy	06/17/2020	#REF!	TC Energy	TC Energy has set ambitious greenhouse gas (GHG)	For Canada to achieve its enhanced climate	TC Energy GHG Emissions Re	
#REF!	Energy		Loading...	PetroChina	Pledged to strive to peak its carbon emissions by	Implementing CCUS technology, carbon	PetraChina Pledge	
#REF!	Finance	08/30/2021	#REF!	Accelerate Financial Technolog	Accelerate Financial Technologies Inc. plans to	Carbon sequestration via planting of trees;	Accelerate Pledge	
#REF!	Finance	05/27/2021	Loading...	Crypto.com	Crypto.com announced an ambitious goal of	The second phase will identify the most effective	Crypto.com Pledge	
#REF!	Finance	May 7th, 2021	Loading...	Manulife	Manulife is proud to share they are net zero in	Hancock Natural Resource Group (HNRG), a	Manulife Pledge	The 3 Arcas Manulife Will
#REF!	Finance	05/12/2021	Loading...	TIAA	TIAA, a leading provider of secure retirements and	Nature-based solutions including afforestation,	TIAA Pledge	
#REF!	Finance	04/21/2021	Loading...	Visa	Visa is looking broader and longer-term by	Their carbon offsets portfolio includes projects	Visa Pledge	
#REF!	Finance	10/09/2020	Loading...	HSBC	HSBC pledged to be net-zero in their own operations	HSBC is still in the process of determining how it	HSBC Pledge	
#REF!	Finance	09/21/2020	Loading...	Morgan Stanley	Morgan Stanley committed to reaching net-zero	Morgan Stanley is still in the process fo	Morgan Stanley Pledge	
#REF!	Finance	04/21/2020	Loading...	Harvard	Harvard's Endowment will become greenhouse-gas	This commitment is not the same as fossil-fuel	Harvard Pledge	
#REF!	Finance	01/01/2020	Loading...	Barclays	Barclays has a plan to be net-zero by 2030 in Scope 1	Barclays' strategy is to align with the goals of the	Barclays Pledge	
#REF!	Finance	03/01/2021	Loading...	Citibank	Citibank plans to have net-zero greenhouse gas	Within their portfolio, Citi plans to incorporate	Citi Pledge	Citi's Environmental and S
#REF!	Finance	02/11/2021	Loading...	Bank of America	Bank of America intends to be net-zero by 2050 for	Bank of America supports advancement and	Bank of America's Pledge	Environmental and Social
#REF!	Finance	03/08/2021	Loading...	Wells Fargo	Wells Fargo will transition to net-zero emissions for	Wells Fargo has created three "Scope" levels for	Wells Fargo Pledge	Wells Fargo Newsroom
#REF!	Finance	10/06/2020	Loading...	JP Morgan Chase	JP Morgan Chase intends to be achieve net-zero	JP Morgan Chase is committing to not only be	JP Morgan Chase Press Release	JP Morgan Chase Sustaina
#REF!	Food and Beverage	01/15/2019	#REF!	Coca Cola HBC Switzerland	Coca-Cola HBC Switzerland, a vendor that makes	Climeworks is building machines with filters that	Coca Cola HBC Switzerland Pl	Business Insider
#REF!	Heavy Industry (steel, cem	04/21/2021	Loading...	United States Steel	United States Steel Corporation (NYSE: X) ("U. S.	To achieve its net-zero goal for 2050, U. S. Steel	US Steel Pledge	
#REF!	Heavy Industry (steel, cem	09/21/2020	Loading...	LafargeHolcim	On our way to becoming a net zero company, we are	Reaching net zero in cement manufacturing which	LafargeHolcim Pledge	
#REF!	Heavy Industry (steel, cem	07/01/2019	Loading...	ThyssenKrupp	Germany's largest steelmaker, ThyssenKrupp,	ThyssenKrupp will pursue several measures to	ThyssenKrupp Pledge	
#REF!	Heavy Industry (steel, cem	05/13/2019	Loading...	Heidelberg Cement	In addition to setting short-term targets for 2030, the	HeidelbergCement will improve its energy	Heidelberg Cement Pledge	
#REF!	Heavy Industry (steel, cem	01/01/2016	Loading...	SSAB	SSAB is taking the lead in decarbonizing the steel	SSAB will cut their CO2 emissions in Sweden by	SSAB Pledge	
#REF!	Hospitality	09/22/2021	Loading...	Marriot	Marriott International, Inc announced it has	Planting more than 415,000 trees over the last	Marriot Pledge	USA Today Coverage
#REF!	Insurance	02/20/2020	Loading...	Swiss Re	Swiss Re committed to achieving net-zero emissions	Their motto is "Do our best, remove the rest."	Swiss Re Pledge	
#REF!	Logistics		Loading...	Brambles	2025 Business Positive targets:	According to their pledge, they will" enable the	Brambles Pledge	
#REF!	Retail	09/03/2020	Loading...	Velux	Velux committed to becoming lifetime carbon neutral	Velux has partnered with WWF to invest in forest	Velux Pledge	
#REF!	Manufacturing	09/24/2019	Loading...	Saint-Gobain	Saint-Gobain commits itself to reach net-zero	Saint-Gobain designs, produces and distributes	Saint-Gobain Pledge	
#REF!	Manufacturing	01/28/2021	Loading...	General Motors	General Motors plans to be carbon neutral by 2040	GM's carbon neutrality plans come from its	General Motors Pledge	
#REF!	Non-energy utilities	11/12/2020	Loading...	United Utilities	As part of their April 2019 Public Interest	1,000 hectares of peat bog restoration will be	United Utilities Pledge	
#REF!	Pharmaceutical/Chemical	01/23/2020	Loading...	AstraZeneca	Within this decade, AstraZeneca plans to remove	This carbon negative pledge will be realized	AstraZeneca Pledge	
#REF!	Pharmaceutical/Chemical	03/01/2022	Loading...	Bayer AG	Race to Zero: Net Zero 2050 - Commit to achieve	Bayer has noted nature-based removals including	Bayer Pledge	
#REF!	Power and Gas		Loading...	General Electric	In 2020, GE set a new goal of carbon	Over the long term, to achieve the levels		
#REF!	Real Estate	02/10/2021	#REF!	Active Super Australia	Aims to take our fight for the environment even	Other than the pledge, little has been written	Active Super Pledge	WGBC Active Super
#REF!	Real Estate	05/04/2021	Loading...	AMP Capital	AMP Capital has signed a seven-year renewable	A technological breakthrough - possibly carbon	AMP Capital Managed Portfoli	AMP Capital Pledge Annu
#REF!	Real Estate	04/20/2021	Loading...	Antiooppi	Last year the company signed the Net Zero Carbon	Other than the pledge, little has been written	Antiooppi Pledge	WGBC Antiooppi Coverag
#REF!	Real Estate	10/05/2020	Loading...	Argent LLP	Commits to all occupied assets operating at net zero	Other than the pledge, little has been written	Argent Services Pledge on WGB	Argent Services Press Rele
#REF!	Real Estate	06/06/2020	Loading...	Arthaland	Arthaland commits to design, own and operate net	Other than the pledge, little has been written	Arthaland Pledge	BBC Coverage on Arthalan
#REF!	Real Estate	06/10/2021	#REF!	Assura	Assura pledges to advance their development process	Other than the pledge, little has been written	Assura Pledge	Assura Net Zero Carbon S
#REF!	Red Meat, Pork, Poultry &		#REF!	Grave Brothers Farmstead Chees	Grave Brothers Farm is producing more electricity	Our computer controlled anaerobic digestion	Grave Brothers Farm Pledge	
#REF!	Red Meat, Pork, Poultry &	06/09/2021	Loading...	Tyson	To achieve net-zero greenhouse gas (GHG)	Completing initial land stewardship target of	Tyson Pledge	Reuters
#REF!	Red Meat, Pork, Poultry &	03/23/2021	Loading...	JBS Foods	JBS has made a commitment to achieve net-zero	Eliminating deforestation: JBS will eliminate	JBS Pledge	
#REF!	Retail	09/14/2021	Loading...	Procter & Gamble	The company plans to achieve net zero greenhouse	P&G will explore Ingredients made from		
#REF!	Retail	06/29/2021	Loading...	Giant Eagle	A commitment to achieve net zero carbon emissions	Investments into negative emissions technologies	Giant Eagle Pledge	

#REF!	Retail	06/15/2021	Loading...	Ralph Lauren	Net zero global greenhouse gas (GHG) emissions	For emissions that cannot be reduced through	Ralph Lauren Pledge	
#REF!	Retail	06/08/2021	Loading...	HEXO Corp	Hexo is offsetting the company's operational	Through a partnership with Offsetters, in support	HEXO Pledge	GlobeNewswire
#REF!	Retail	05/21/2021	Loading...	Whirlpool	Whirlpool Corporation made a global commitment	Leveraging carbon removal development	Whirlpool Pledge	Grand Rapids Business Jo
#REF!	Retail		Loading...	Shaklee	In 2000 Shaklee became the first company in the	2021"Our commitment to the planet started	Shaklee Pledge	
#REF!	Retail	04/22/2021	Loading...	Ancient Nutrition	Superfoods supplement purveyor Ancient Nutrition	Become carbon Negative through regenerative	Ancient Nutrition Pledge	
#REF!	Retail	04/22/2021	Loading...	Klarna	Klarna is committed to reduce its emissions by 50%	Klarna will make annual financial contributions to	Klarna Pledge	
#REF!	Shipping	03/03/2021	Loading...	FedEx	FedEx Corp. (NYSE: FDX), home of the world's	This includes a pledge of \$100 million to Yale	FedEx Pledge	
#REF!	Retail	06/20/2021	#REF!	Prima	Prima is 100% carbon neutral across the entire	Beyond Carbon Neutral: As a business, we are	Prima Pledge	
#REF!	Retail	04/16/2021	Loading...	Cacto	CACTO is proud to be the first Carbon Negative	Through a partnership with Swiss nonprofit	Cacto Pledge	Fashion United
#REF!	Retail	09/21/2020	Loading...	Walmart	Walmart committed to zero emissions from its global	Walmart does not plan to do CDR in their zero	Walmart Pledge	
#REF!	Retail	04/06/2021	Loading...	Indigo	Indigo's goal is to have net-zero emissions by 2035.	Indigo is partnering with One Tree Planted, a	Indigo Pledge	Yahoo!
#REF!	Retail	03/30/2021	Loading...	Netflix	Netflix will achieve net zero greenhouse gas	Conserving at-risk natural areas like tropical	Netflix Pledge	
#REF!	Retail	09/17/2020	Loading...	Nespresso	Nespresso today commits that every cup of	Planting trees in coffee farms and the surrounding	Nespresso Pledge	
#REF!	Retail	09/03/2020	Loading...	BrewDog	BrewDog has become carbon negative. "From 22	Natural removal: Purchased 2,050 acres of land in	BrewDog Plan	
#REF!	Retail	08/24/2020	Loading...	Danone	Horizon Organic announced a commitment to	Horizon's carbon positive pledge will be fulfilled	Horizon Organic Pledge	
#REF!	Retail	03/03/2020	Loading...	3Degrees INC	Part of pledge taken by over 500 B Corps – including	Other than the pledge, little has been written	3Degrees Pledge	
#REF!	Retail	01/30/2020	Loading...	Starbucks	Starbucks has committed to being resource positive –	"Invest in innovative and regenerative agricultural	Starbucks Pledge	
#REF!	Retail	01/21/2020	Loading...	Unilever	Unilever has pledged to be Net-zero emissions by	Unilever's pledge aligns with a coalition of	Unilever Pledge	
#REF!	Retail	12/11/2019	Loading...	The Body Shop	Part of pledge taken by over 500 B Corps – including	Other than the pledge, little has been written	Body Shop Pledge	
#REF!	Retail	12/11/2019	Loading...	Allbirds	Part of pledge taken by over 500 B Corps – including	Other than the pledge, little has been written	Allbirds Pledge	
#REF!	Retail	12/11/2019	Loading...	Dr. Bronner's	Part of pledge taken by over 500 B Corps – including	Other than the pledge, little has been written	Dr. Bronners Pledge	
#REF!	Retail	12/11/2019	Loading...	Nestle	Nestle has committed to having net-zero carbon	Produce more environmentally friendly products,	Nestle Pledge	
#REF!	Retail	09/12/2019	Loading...	Amazon	Under Amazon's Climate Pledge, they committed to	Amazon is launching the Right Now Climate	Amazon Pledge	
#REF!	Retail	09/01/2019	Loading...	Ikea	2018, IKEA, the world's largest furniture retailer,	Ikea's parent company is investing an additional	Ikea Pledge	
#REF!	Shipping	11/30/2018	Loading...	Stena Bulk	Stena Bulk offers a roadmap with a target to become	Fuel-switching, including to hydrogen and	Stena Bulk Pledge	Climate Action News
#REF!	Tech		Loading...	Expensify	Expensify commits to becoming Net Zero by 2030	To meaningfully offset its carbon footprint,	Expensify's Pledge	
#REF!	Tech	06/12/2021	Loading...	Logitech	Logitech have accelerated their	Becoming carbon neutral this year is a first step	Logitech Pledge	
#REF!	Tech	09/22/2021	Loading...	Algorand	Algorand Network commits to being Carbon	"Through our carbon offset plan with	Algorand Pledge	
#REF!	Tech	09/02/2021	Loading...	LinkedIn	LinkedIn seeks to be carbon-neutral by 2030 and	LinkedIn tracks the carbon emissions from their	LinkedIn Pledge	
#REF!	Tech	04/22/2021	Loading...	GlaxoSmithKline	Net zero emissions across all operations by 2030	The company be turning to responsible and high-	GSK Pledge	
#REF!	Tech	07/13/1905	Loading...	Facebook	Facebook is committed to helping solve the climate	Facebook's approach to carbon removal builds on	Facebook Pledge	Full net-zero commitment
#REF!	Tech	11/20/2020	Loading...	Stripe	In order to have Negative Emissions, Stripe	Fund forestation initiatives, soil management	Stripe Pledge	
#REF!	Tech	09/01/2020	Loading...	Apple	Commits to be 100% carbon neutral for its supply	Natural solutions. "Carbon removal: Apple is	Apple Pledge	
#REF!	Tech	08/15/2019	#REF!	Microsoft	Microsoft has pledged to be carbon negative by 2030.	Reforestation, soil carbon sequestration, and new	Microsoft Pledge	
#REF!	Tech	07/21/2020	Loading...	Intuit	Using its 2018 carbon footprint metric as a baseline,	Through a partnership with Project Drawdown's	Intuit Pledge	
#REF!	Tech	01/16/2020	Loading...	Atlassian	As part of their commitment to combat climate	Company states that going accomplishing net-	Atlassian Pledge	
#REF!	Tech	09/23/2019	Loading...	Shopify	In addition to being carbon neutral, Shopify has	Shopify is committed to investing at least \$1	Shopify Pledge	
#REF!	Tech	09/23/2019	#REF!	BT Group	BT Group is committed to being a net-zero carbon	While they have committed to being a net-zero	BT Pledge	
#REF!	Tech	09/12/2019	Loading...	Salesforce	Committed to being net-zero in 2017. Is now a net-	Through offsets and reforestation. "The carbon	Salesforce Pledge	
#REF!	Tech	10/01/2018	Loading...	Google	Google has been carbon neutral since 2007, but is	Google purchases offsets and has a series of	Google Pledge	
#REF!	Tech	04/17/2017	#REF!	Wipac	The energy industry is focused in three avenues for	One of the practical ways to achieve near net zero	Wipac LTD Pledge	Business Insider
#REF!	Tobacco	09/21/2020	Loading...	Philip Morris International	Achievement of carbon neutrality of PMI's direct	Philip Morris cites "reforestation" and "soil	PMI Pledge	
#REF!	Waste & Recycling	04/12/2021	Loading...	Viridor	Viridor has pledged that ahead of COP26 in	Capturing and storing carbon emissions from	Viridor Pledge	
	Energy	05/20/2021	Loading...	Dominion	Originally, in 2020 they made a "commitment to achi	Dominion has committed to using CCS-based re	Dominion Pledge	
	Energy	08/26/2020	#REF!	Williams Companies, Inc.	Williams aspires to be net zero by 2050, with a 56%	Williams cites CCS-based removals in their long	Williams Companies, Inc. Pled	
	Energy		#REF!	Santos	In 2021, Santos set new greenhouse gas emission	Santos will target CCS based removals that will	Santos Pledge	



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Flag	Sector	Pledge Date	Year	Owner	Commitment	CDR Methods	Commitment Link	Media Coverage
#REF!	Agriculture	03/30/2020	#REF!	Archer Daniels Midland Co	ADM announced a new plan to reduce its absolute greenhouse gas emissions by 50% by 2030.	Archer Daniels Midland Company (NYSE: ADM)	Archer Daniels Midland Pledge	
#REF!	Agriculture		Loading...	Olam Group	Race to Zero: Net Zero 2050 - Commit to achieve net-zero emissions by 2050.	Olam has cited CCS-based removals such as	Olam Pledge	
#REF!	Architecture and Design	08/02/2021	#REF!	Deceen	Deceen is committing to becoming a net-zero business by 2030.	Deceen is currently investigating all of the sources	Deceen Pledge	
#REF!	Automotive	09/07/2021	#REF!	Audi	By 2025, the Volkswagen Group wants to reduce the carbon footprint of its vehicles.	Audi has paid Climeworks to capture and remove CO2.	Audi Pledge	New York Times Coverage
#REF!	Aviation	09/13/2021	#REF!	Asia Pacific Airlines	The Association of Asia Pacific Airlines (AAPA)	ICAO Carbon Offsetting and Reduction Scheme	AAPA Pledge	
#REF!	Aviation	04/21/2021	#REF!	Alaska Airlines	Alaska Airlines today announced its commitment and goal to reach net-zero emissions by 2050.	Due to aviation being one of the most difficult	Alaska Airlines Pledge	
#REF!	Aviation	12/10/2020	Loading...	United Airlines	United is pledging to become 100% green by 2050.	United intends to make a multimillion-dollar	United Pledge	
#REF!	Aviation	02/17/2020	Loading...	Delta Airlines	Delta Air Lines has committed \$1bn over the next five years to reach net-zero emissions by 2050.	The airline will continue to focus on the removal of carbon from its operations.	Delta Pledge	Forbes Magazine
#REF!	Aviation	01/15/2020	#REF!	Etihad Airways	Etihad committed to a minimum target of zero net emissions by 2050.	"The global focus on the environment and the	Etihad Pledge	Business Travel News
#REF!	Aviation	01/06/2020	Loading...	JetBlue	JetBlue will offset carbon dioxide emissions from jet flights by 2025.	JetBlue will partner with Carbonfund.org and	JetBlue Pledge	BusinessWire
#REF!	Aviation	11/19/2019	Loading...	Easy Jet	Easy Jet committed to net-zero carbon flights by 2050.	Easy Jet will offset the carbon from the fuel used	Easy Jet Pledge	CNN Business
#REF!	Aviation	11/11/2019	#REF!	Qantas Airways	The Qantas Group will reach net-zero carbon emissions by 2050.	Existing projects benefiting from the offsets	Qantas Pledge	Reuters
#REF!	Aviation	10/01/2019	Loading...	British Airways	British Airways has announced plans to offset the carbon emissions from its flights.	The carrier says it will invest in verified carbon	British Airways Pledge	Atlanta Business Chronicle
#REF!	Aviation	03/15/2021	Loading...	Air Canada	Air Canada has a goal to have all global operations net-zero by 2050.	Air Canada plans to shift to sustainable air fuel,	Air Canada Pledge	
#REF!	Aviation	07/27/2021	Loading...				BAE Systems Pledge	Energy Live News
#REF!	Construction	04/22/2021	Loading...	BNBuilders	BNBuilders announced clean construction targets for 2030.	They will advocate for alternative methods of	BNBuilders Pledge	
#REF!	Consulting	09/01/2020	Loading...	Boston Consulting Group	BCG committed to net-zero climate impact by 2030.	BCG will remove its remaining emissions by	BCG Pledge	Forbes Magazine
#REF!	Education	05/01/2021	#REF!	Australian National University	ANU has announced the Below Zero Initiative, a plan to reach net-zero emissions by 2050.	Carbon sequestration: Developing and	ANU Pledge	
#REF!	Energy	04/19/2021	Loading...	San Diego Gas & Electric	Building on the sustainability strategy it released last year, SDG&E has committed to net-zero emissions by 2050.	The company plans to employ carbon capture and	San Diego Gas & Electric Pledge	
#REF!	Energy	03/04/2021	#REF!	Chevron	Chevron Corporation, Schlumberger New Energy, and Jera have committed to net-zero emissions by 2050.	The BECCS plant will convert agricultural waste	Chevron Pledge	BioMass Magazine
#REF!	Energy	10/13/2020	#REF!	Jera	Jera pledged to achieve zero carbon emissions by 2050.	Jera aims to eliminate its carbon emissions and	Jera Pledge	Bloomberg Quint
#REF!	Energy	11/02/2020	Loading...	Equinor	Equinor climate ambitions: Net-zero emissions by 2050.	Net-zero emissions requires a well-functioning	Equinor's Pledge	
#REF!	Energy	05/27/2020	Loading...	Southern Company	Southern Company moved to a long-term goal of net-zero emissions by 2050.	The company will continue to reduce GHG	Southern Company's Pledge	GreenBiz
#REF!	Energy	05/05/2020	#REF!	Total S.A.	Total has a new climate ambition to become net-zero by 2050.	Total is committed to reducing its carbon	Total Pledge	World Oil Magazine
#REF!	Energy	04/16/2020	#REF!	Royal Dutch Shell	Royal Dutch Shell has committed to being net-zero by 2050.	Shell plans to offset its own emissions by trapping	Royal Dutch Shell Pledge	Carbon Brief
#REF!	Energy	02/24/2020	Loading...	Consumers Energy	Consumers Energy announced a goal to achieve net-zero emissions by 2050.	"Strategies such as carbon capture and	Consumers Energy Pledge	Cision - PR Newswire
#REF!	Energy	02/12/2020	#REF!	BP	BP has pledged to reach net-zero across BP's operations by 2050.	BP plans to achieve their pledge through CCUS	BP Pledge	
#REF!	Energy	12/01/2019	Loading...	Repsol	Repsol announced a commitment to net-zero emissions by 2050.	Repsol said it would pursue a number of measures	Repsol Pledge	
#REF!	Energy	09/24/2019	Loading...	NRG Energy	NRG Energy has pledged to have net-zero emissions by 2050.	NRG Energy has stated that CCS (carbon capture	NRG Energy Pledge	
#REF!	Energy	09/17/2019	Loading...	Duke Energy	Duke Energy announced an updated climate strategy to reach net-zero emissions by 2050.	"Getting to net-zero carbon emissions, while	Duke Energy Pledge	
#REF!	Energy	05/20/2019	Loading...	Xcel Energy	Xcel Energy has committed to having net-zero emissions by 2050.	Xcel is still in the process of determining how it	Xcel Energy	
#REF!	Energy	03/23/2021	#REF!	Southern California Gas Company	SoCalGas has a carbon neutrality goal for 2045 in the area of CCUS, the companies will further	SoCalGas plans to have net-zero energy	SoCalGas Pledge	CalMatters on SoCalGas C
#REF!	Energy	01/13/2021	#REF!	Occidental Petroleum	To implement a Net Zero Energy Cycle which includes capturing and storing CO2 from industrial processes.	This cycle starts with capturing CO2 from the	https://www.osy.com/OurBusiness/NetZeroEnergyCycle.aspx">https://www.osy.com/OurBusiness/NetZeroEnergyCycle.aspx	https://apnews.com/article/occidental-petroleum-net-zero-emissions-2021-01-13">https://apnews.com/article/occidental-petroleum-net-zero-emissions-2021-01-13
#REF!	Energy	08/12/2021	Loading...	ExxonMobil	ExxonMobil has launched the Low Carbon Solutions initiative to reach net-zero emissions by 2050.	It was the first company to capture more than 120	ExxonMobil Pledge	Forbes Magazine Article
#REF!	Energy	05/27/2021	#REF!	Eni UK	Decarbonisation is structurally embedded in Eni's strategy to reach net-zero emissions by 2050.	Under the agreement, Eni will develop and	Eni Pledge	Reuters Magazine Article
#REF!	Energy	08/15/2019	#REF!	France's Total	Total aspires to become a major player in CCUS	Its membership reflects the center's growing	Total's Pledge	Reuters Magazine Article
#REF!	Energy	11/11/2020	#REF!	ADNOC (UAE)	ADNOC and Total will jointly explore opportunities to reach net-zero emissions by 2050.	In the area of CCUS, the companies will further	ADNOC Pledge	CNBC News
#REF!	Energy	08/26/2021	#REF!	China National Petroleum Corporation	CNPC publishes only its Scope 1 and 2 greenhouse gas emissions.	CNPC focuses on carbon capture, utilization, and	CNPC Pledge	CSIS Analysis of Chinese Emissions
#REF!	Energy	08/27/2021	#REF!	Linde	Linde admits an international focus on achieving net-zero emissions by 2050.	Initiatives include developing industry-leading	Linde Pledge	Gas World Article
#REF!	Energy	11/16/2020	Loading...	Aker Solutions	Aker Solutions aims to generate about half of its energy from renewable sources by 2050.	Lower the carbon emissions from their	Aker Solutions Pledge	OE Digital News
#REF!	Energy	21(updated 6/4/2021)	#REF!	Drax Global	The UK needs negative emissions technologies to reach net-zero emissions by 2050.	With an effective negative emissions policy and	Drax Pledge	Energy Monitor AI Coverage
#REF!	Energy	06/17/2020	#REF!	TC Energy	TC Energy has set ambitious greenhouse gas (GHG) emissions targets to reach net-zero by 2050.	For Canada to achieve its enhanced climate	TC Energy GHG Emissions Report	
#REF!	Energy		Loading...	PetroChina	PetroChina pledged to reach net-zero emissions by 2050.	Implementing CCUS technology, carbon	PetroChina Pledge	
#REF!	Finance	08/30/2021	#REF!	Accelerate Financial Technologies	Accelerate Financial Technologies Inc. plans to reach net-zero emissions by 2050.	Carbon sequestration via planting of trees;	Accelerate Pledge	
#REF!	Finance	05/27/2021	Loading...	Crypto.com	Crypto.com announced an ambitious goal of net-zero emissions by 2050.	The second phase will identify the most effective	Crypto.com Pledge	
#REF!	Finance	May 7th, 2021	Loading...	Manulife	Manulife is proud to share they are net zero in 2021.	Hancock Natural Resource Group (HNRG), a	Manulife Pledge	The 3 Arcas Manulife Will
#REF!	Finance	05/12/2021	Loading...	TIAA	TIAA, a leading provider of secure retirements and investments, has committed to net-zero emissions by 2050.	Nature-based solutions including afforestation,	TIAA Pledge	
#REF!	Finance	04/21/2021	Loading...	Visa	Visa is looking broader and longer-term by reaching net-zero emissions by 2050.	Their carbon offsets portfolio includes projects	Visa Pledge	
#REF!	Finance	10/09/2020	Loading...	HSBC	HSBC pledged to be net-zero in their own operations by 2050.	HSBC is still in the process of determining how it	HSBC Pledge	
#REF!	Finance	09/21/2020	Loading...	Morgan Stanley	Morgan Stanley committed to reaching net-zero emissions by 2050.	Morgan Stanley is still in the process fo	Morgan Stanley Pledge	
#REF!	Finance	04/21/2020	Loading...	Harvard	Harvard's Endowment will become greenhouse-gas neutral by 2050.	This commitment is not the same as fossil-fuel	Harvard Pledge	
#REF!	Finance	01/01/2020	Loading...	Barclays	Barclays has a plan to be net-zero by 2030 in Scope 1 and 2 emissions.	Barclays' strategy is to align with the goals of the Paris Agreement.	Barclays Pledge	
#REF!	Finance	03/01/2021	Loading...	Citibank	Citibank plans to have net-zero greenhouse gas emissions by 2050.	Within their portfolio, Citi plans to incorporate	Citi Pledge	Citi's Environmental and Social
#REF!	Finance	02/11/2021	Loading...	Bank of America	Bank of America intends to be net-zero by 2050 for its own operations.	Bank of America supports advancement and	Bank of America's Pledge	Environmental and Social
#REF!	Finance	03/08/2021	Loading...	Wells Fargo	Wells Fargo will transition to net-zero emissions by 2050.	Wells Fargo has created three "Scope" levels for	Wells Fargo Pledge	Wells Fargo Newsroom
#REF!	Finance	10/06/2020	Loading...	JP Morgan Chase	JP Morgan Chase intends to be net-zero emissions by 2050.	JP Morgan Chase is committing to not only be	JP Morgan Chase Press Release	JP Morgan Chase Sustaina
#REF!	Food and Beverage	01/15/2019	#REF!	Coca Cola HBC Switzerland	Coca-Cola HBC Switzerland, a vendor that makes soft drinks, has committed to net-zero emissions by 2050.	Climeworks is building machines with filters that	Coca Cola HBC Switzerland Pl	Business Insider
#REF!	Heavy Industry (steel, cement)	04/21/2021	Loading...	United States Steel	United States Steel Corporation (NYSE: X) ("U.S. Steel") has committed to net-zero emissions by 2050.	To achieve its net-zero goal for 2050, U.S. Steel	US Steel Pledge	
#REF!	Heavy Industry (steel, cement)	09/21/2020	Loading...	LafargeHolcim	On our way to becoming a net zero company, we are committed to net-zero emissions by 2050.	Reaching net zero in cement manufacturing which	LafargeHolcim Pledge	
#REF!	Heavy Industry (steel, cement)	07/01/2019	Loading...	ThyssenKrupp	Germany's largest steelmaker, ThyssenKrupp, has committed to net-zero emissions by 2050.	ThyssenKrupp will pursue several measures to	ThyssenKrupp Pledge	
#REF!	Heavy Industry (steel, cement)	05/13/2019	Loading...	Heidelberg Cement	In addition to setting short-term targets for 2030, the company has committed to net-zero emissions by 2050.	HeidelbergCement will improve its energy	Heidelberg Cement Pledge	
#REF!	Heavy Industry (steel, cement)	01/01/2016	Loading...	SSAB	SSAB is taking the lead in decarbonizing the steel industry.	SSAB will cut their CO2 emissions in Sweden by	SSAB Pledge	
#REF!	Hospitality	09/22/2021	Loading...	Marriott	Marriott International, Inc announced it has committed to net-zero emissions by 2050.	Planting more than 415,000 trees over the last	Marriott Pledge	USA Today Coverage
#REF!	Insurance	02/20/2020	Loading...	Swiss Re	Swiss Re committed to achieving net-zero emissions by 2050.	Their motto is "Do our best, remove the rest."	Swiss Re Pledge	
#REF!	Logistics		Loading...	Brambles	2025 Business Positive targets: Net-zero emissions by 2050.	According to their pledge, they will" enable the	Brambles Pledge	
#REF!	Retail	09/03/2020	Loading...	Velux	Velux committed to becoming lifetime carbon neutral by 2050.	Velux has partnered with WWF to invest in forest	Velux Pledge	
#REF!	Manufacturing	09/24/2019	Loading...	Saint-Gobain	Saint-Gobain commits itself to reach net-zero emissions by 2050.	Saint-Gobain designs, produces and distributes	Saint-Gobain Pledge	
#REF!	Manufacturing	01/28/2021	Loading...	General Motors	General Motors plans to be carbon neutral by 2040.	GM's carbon neutrality plans come from its	General Motors Pledge	
#REF!	Non-energy utilities	11/12/2020	Loading...	United Utilities	As part of their April 2019 Public Interest Decarbonisation Plan, United Utilities has committed to net-zero emissions by 2050.	1,000 hectares of peat bog restoration will be	United Utilities Pledge	
#REF!	Pharmaceutical/Chemical	01/23/2020	Loading...	AstraZeneca	Within this decade, AstraZeneca plans to remove 1 million tonnes of CO2 from its operations.	This carbon negative pledge will be realized	AstraZeneca Pledge	
#REF!	Pharmaceutical/Chemical	03/01/2022	Loading...	Bayer AG	Race to Zero: Net Zero 2050 - Commit to achieve net-zero emissions by 2050.	Bayer has noted nature-based removals including	Bayer Pledge	
#REF!	Power and Gas		Loading...	General Electric	In 2020, GE set a new goal of carbon neutrality by 2050.	Over the long term, to achieve the levels		
#REF!	Real Estate	02/10/2021	#REF!	Active Super Australia	Aims to take our fight for the environment even further by reaching net-zero emissions by 2050.	Other than the pledge, little has been written	Active Super Pledge	WGBC Active Super
#REF!	Real Estate	05/04/2021	Loading...	AMP Capital	AMP Capital has signed a seven-year renewable energy agreement.	A technological breakthrough – possibly carbon	AMP Capital Managed Portfolio	AMP Capital Pledge Annu
#REF!	Real Estate	04/20/2021	Loading...	Antilooppi	Last year the company signed the Net Zero Carbon Pledge.	Other than the pledge, little has been written	Antilooppi Pledge	WGBC Antilooppi Coverag
#REF!	Real Estate	10/05/2020	Loading...	Argent LLP	Committed to all occupied assets operating at net zero emissions by 2050.	Other than the pledge, little has been written	Argent Services Pledge on WG	Argent Services Press Rele
#REF!	Real Estate	06/06/2020	Loading...	Arthaland	Arthaland commits to design, own and operate net-zero buildings.	Other than the pledge, little has been written	Arthaland Pledge	BBC Coverage on Arthalan
#REF!	Real Estate	06/10/2021	#REF!	Assura	Assura pledges to advance their development process to reach net-zero emissions by 2050.	Other than the pledge, little has been written	Assura Pledge	Assura Net Zero Carbon S
#REF!	Red Meat, Pork, Poultry & Seafood		#REF!	Grave Brothers Farmstead Chees	Grave Brothers Farm is producing more electricity from solar panels.	Our computer controlled anaerobic digestion	Grave Brothers Farm Pledge	
#REF!	Red Meat, Pork, Poultry & Seafood	06/09/2021	Loading...	Tyson	To achieve net-zero greenhouse gas (GHG) emissions by 2050.	Completing initial land stewardship target of	Tyson Pledge	Reuters
#REF!	Red Meat, Pork, Poultry & Seafood	03/23/2021	Loading...	JBS Foods	JBS has made a commitment to achieve net-zero emissions by 2050.	Eliminating deforestation: JBS will eliminate	JBS Pledge	
#REF!	Retail	09/14/2021	Loading...	Procter & Gamble	The company plans to achieve net zero greenhouse gas emissions by 2050.	P&G will explore Ingredients made from		
#REF!	Retail	06/29/2021	Loading...	Giant Eagle	A commitment to achieve net zero carbon emissions by 2050.	Investments into negative emissions technologies	Giant Eagle Pledge	

#REF!	Retail	06/15/2021	Loading...	Ralph Lauren	Net zero global greenhouse gas (GHG) emissions	For emissions that cannot be reduced through	Ralph Lauren Pledge	
#REF!	Retail	06/08/2021	Loading...	HEXO Corp	Hexo is offsetting the company's operational	Through a partnership with Offsetters, in support	HEXO Pledge	GlobeNewswire
#REF!	Retail	05/21/2021	Loading...	Whirlpool	Whirlpool Corporation made a global commitment	Leveraging carbon removal development	Whirlpool Pledge	Grand Rapids Business Jo
#REF!	Retail		Loading...	Shaklee	In 2000 Shaklee became the first company in the	2021"Our commitment to the planet started	Shaklee Pledge	
#REF!	Retail	04/22/2021	Loading...	Ancient Nutrition	Superfoods supplement purveyor Ancient Nutrition	Become carbon Negative through regenerative	Ancient Nutrition Pledge	
#REF!	Retail	04/22/2021	Loading...	Klarna	Klarna is committed to reduce its emissions by 50%	Klarna will make annual financial contributions to	Klarna Pledge	
#REF!	Shipping	03/03/2021	Loading...	FedEx	FedEx Corp. (NYSE: FDX), home of the world's	This includes a pledge of \$100 million to Yale	FedEx Pledge	
#REF!	Retail	06/20/2021	#REF!	Prima	Prima is 100% carbon neutral across the entire	Beyond Carbon Neutral: As a business, we are	Prima Pledge	
#REF!	Retail	04/16/2021	Loading...	Cacto	CACTO is proud to be the first Carbon Negative	Through a partnership with Swiss nonprofit	Cacto Pledge	Fashion United
#REF!	Retail	09/21/2020	Loading...	Walmart	Walmart committed to zero emissions from its global	Walmart does not plan to do CDR in their zero	Walmart Pledge	
#REF!	Retail	04/06/2021	Loading...	Indigo	Indigo's goal is to have net-zero emissions by 2035.	Indigo is partnering with One Tree Planted, a	Indigo Pledge	Yahoo!
#REF!	Retail	03/30/2021	Loading...	Netflix	Netflix will achieve net zero greenhouse gas	Conserving at-risk natural areas like tropical	Netflix Pledge	
#REF!	Retail	09/17/2020	Loading...	Nespresso	Nespresso today commits that every cup of	Planting trees in coffee farms and the surrounding	Nespresso Pledge	
#REF!	Retail	09/03/2020	Loading...	BrewDog	BrewDog has become carbon negative. "From 22	Natural removal: Purchased 2,050 acres of land in	BrewDog Plan	
#REF!	Retail	08/24/2020	Loading...	Danone	Horizon Organic announced a commitment to	Horizon's carbon positive pledge will be fulfilled	Horizon Organic Pledge	
#REF!	Retail	03/03/2020	Loading...	3Degrees INC	Part of pledge taken by over 500 B Corps – including	Other than the pledge, little has been written	3Degrees Pledge	
#REF!	Retail	01/30/2020	Loading...	Starbucks	Starbucks has committed to being resource positive –	"Invest in innovative and regenerative agricultural	Starbucks Pledge	
#REF!	Retail	01/21/2020	Loading...	Unilever	Unilever has pledged to be Net-zero emissions by	Unilever's pledge aligns with a coalition of	Unilever Pledge	
#REF!	Retail	12/11/2019	Loading...	The Body Shop	Part of pledge taken by over 500 B Corps – including	Other than the pledge, little has been written	Body Shop Pledge	
#REF!	Retail	12/11/2019	Loading...	Allbirds	Part of pledge taken by over 500 B Corps – including	Other than the pledge, little has been written	Allbirds Pledge	
#REF!	Retail	12/11/2019	Loading...	Dr. Bronner's	Part of pledge taken by over 500 B Corps – including	Other than the pledge, little has been written	Dr. Bronners Pledge	
#REF!	Retail	12/11/2019	Loading...	Nestle	Nestle has committed to having net-zero carbon	Produce more environmentally friendly products,	Nestle Pledge	
#REF!	Retail	09/12/2019	Loading...	Amazon	Under Amazon's Climate Pledge, they committed to	Amazon is launching the Right Now Climate	Amazon Pledge	
#REF!	Retail	09/01/2019	Loading...	Ikea	2018, IKEA, the world's largest furniture retailer,	Ikea's parent company is investing an additional	Ikea Pledge	
#REF!	Shipping	11/30/2018	Loading...	Stena Bulk	Stena Bulk offers a roadmap with a target to become	Fuel-switching, including to hydrogen and	Stena Bulk Pledge	Climate Action News
#REF!	Tech		Loading...	Expensify	Expensify commits to becoming Net Zero by 2030	To meaningfully offset its carbon footprint,	Expensify's Pledge	
#REF!	Tech	06/12/2021	Loading...	Logitech	Logitech have accelerated their	Becoming carbon neutral this year is a first step	Logitech Pledge	
				#REF!			Algorand Pledge	
#REF!	Tech	09/23/2019	#REF!	BT Group	BT Group is committed to being a net-zero carbon	While they have committed to being a net-zero	BT Pledge	
#REF!	Tech	09/12/2019	Loading...	Salesforce	Committed to being net-zero in 2017. Is now a net-	Through offsets and reforestation. "The carbon	Salesforce Pledge	
#REF!	Tech	10/01/2018	Loading...	Google	Google has been carbon neutral since 2007, but is	Google purchases offsets and has a series of	Google Pledge	
#REF!	Tech	04/17/2017	#REF!	Wipac	The energy industry is focused in three avenues for	One of the practical ways to achieve near net zero	Wipac LTD Pledge	Business Insider
#REF!	Tobacco	09/21/2020	Loading...	Philip Morris International	Achievement of carbon neutrality of PMI's direct	Philip Morris cites "reforestation" and "soil	PMI Pledge	
#REF!	Waste & Recycling	04/12/2021	Loading...	Vindor	Vindor has pledged that ahead of COP26 in	Capturing and storing carbon emissions from	Vindor Pledge	
	Energy	05/20/2021	Loading...	Dominion	Originally, in 2020 they made a "commitment to ach	Dominion has committed to using CCS-based re	Dominion Pledge	
	Energy	08/26/2020	#REF!	Williams Companies, Inc.	Williams aspires to be net zero by 2050, with a 56%	Williams cites CCS-based removals in their long	Williams Companies, Inc. Pled	
	Energy		#REF!	Santos	In 2021, Santos set new greenhouse gas emissio	Santos will target CCS based removals that will c	Santos Pledge	

Glossary of Carbon Removal Terms

Biochar	Biochar is a charcoal-like substance produced by burning organic material (also called biomass) at temperatures of 300–600°C in an oxygen-limited environment. Biochar can store large amounts of carbon for up to a thousand years, in contrast to the very rapid release of carbon that occurs from the burning or natural decomposition of biomass.
Bioenergy with Carbon Capture and Storage (BECCS)	Bioenergy with carbon capture and storage (BECCS) is a carbon removal technique that depends on two technologies. Biomass (organic material, which extracts carbon dioxide from the atmosphere as it grows) is converted into heat, electricity, or liquid or gas fuels (the “bioenergy” step), and the carbon emissions from this process are captured and stored in geological formations or the deep ocean, or embedded in long-lasting products (the “carbon capture and storage” step). BECCS is sometimes referred to as bioenergy with carbon capture and sequestration. See our BECCS Fact Sheet for more information.
Carbon Capture	Carbon capture includes any process for capturing carbon dioxide, whether from the atmosphere or from a smokestack or other concentrated source of carbon dioxide emissions. This term is sometimes used ambiguously to refer to carbon removal and carbon capture and sequestration, despite the important differences between those two activities. See also carbon capture and sequestration, carbon capture and use, carbon removal.
Carbon Capture and Sequestration (CCS)	Carbon capture and sequestration (CCS) usually refers to the process of capturing carbon dioxide emissions from a point-source, such as the flue of a gas-fired power plant, and injecting the captured carbon dioxide into geological reservoirs. CCS on a fossil fuel power plant reduces carbon emissions but does not remove carbon dioxide from the atmosphere. It therefore does not count as a form of carbon removal. On the difference between CCS and carbon removal, see our Carbon Removal Explainer . See also carbon capture, carbon capture and use.
Carbon Capture and Use (CCU)	Carbon capture and use (CCU) refers to the two-step process of capturing carbon dioxide and using it to make valuable products or provide valuable services. For example, carbon dioxide can be used to carbonate beverages or make synthetic fuels, cement, carbon fibers, and much more. The term is used for the use of carbon captured from the atmosphere and for the use of carbon captured from flue gas via conventional carbon capture and sequestration (CCS). CCU only counts as carbon removal in cases where the carbon dioxide is captured from the atmosphere and stored for long periods of time (e.g., in long-lived products, such as cement). See our Carbon Removal Explainer for more on the relationship between CCU, carbon removal, and carbon capture and sequestration.
Carbon Capture and Use or Sequestration (CCUS)	Carbon capture and use or sequestration (CCUS) is an umbrella term covering both carbon capture and use (CCU) and carbon capture and sequestration (CCS). It often refers to CCU or CCS associated with fossil fuels or cement, rather than to carbon removal.
Carbon Dioxide Removal (CDR)	Carbon dioxide removal (CDR) is a widely used synonym for carbon removal. See also carbon drawdown, negative emissions technologies.
Carbon Drawdown	Carbon drawdown is usually used as a synonym for carbon removal. It sometimes refers specifically to the use of carbon removal to reduce the atmospheric concentration of carbon dioxide, as opposed to simply slowing its increase.

Carbon Neutral	Carbon neutral describes a country, company, process, etc., that does not emit more carbon dioxide than it captures. An entity could be carbon neutral because it does not emit any carbon dioxide in the first place, but "carbon neutral" more often refers to an entity or process that emits some carbon dioxide but removes just as much carbon dioxide from the atmosphere via carbon removal. See also net zero emissions.
CCS	<u>CCS is an acronym that stands for carbon capture and sequestration.</u>
CCUS	<u>CCUS is an acronym that stands for carbon capture and use or sequestration.</u>
CDR	<u>CDR is an acronym that stands for carbon dioxide removal.</u>
Direct Air Capture (DAC)	Direct air capture (DAC) is a process of capturing carbon dioxide directly from the ambient air (as opposed to capturing from point sources, such as a cement factory or biomass power plant) using specially designed machines. In these machines, chemicals bind with carbon dioxide in the air. The carbon dioxide is then separated from those chemicals to produce a stream of concentrated carbon dioxide, which can be sequestered or used to make valuable products. The chemicals are then reused to capture more capture dioxide. When the captured carbon dioxide is sequestered or used in long-lived products, DAC counts as a form of carbon removal. See also direct air capture with carbon storage (DACCS), direct air capture and use (DAC+U), carbon capture and use.
Direct Air Capture with Carbon Storage (DACCS)	Direct air capture with carbon storage (DACCS) refers specifically to the two-step process of using direct air capture to capture carbon dioxide from the atmosphere and then sequestering it, as opposing to using it in short-lived products. DACCS counts as a form of carbon removal. See our DACCS Fact Sheet for more information. See also direct air capture and use (DAC+U).
Direct Air Capture and Use (DAC+U)	Direct air capture and use (DAC+U) refers specifically to the two-step process of using direct air capture to capture carbon dioxide from the atmosphere and then using it to make products, such as carbonated beverages, synthetic fuels, or cement; or to provide services, such as enhanced oil recovery. If the captured carbon dioxide is used in long-lived products, such as cement, DAC+U counts as a form of carbon removal. For more on when carbon capture and use counts as carbon removal, see our Carbon Removal Explainer. See also carbon capture and use.
Enhanced Oil Recovery (EOR)	Enhanced oil recovery (EOR) is the process of injecting compressed carbon dioxide into declining oil wells to increase oil production from the well. The injected carbon dioxide could come from processes that capture carbon dioxide from the ambient atmosphere, such as direct air capture. Using carbon dioxide captured from the atmosphere would reduce the overall lifecycle emissions of the oil produced through EOR. Under most circumstances, however, burning oil produced with EOR still contributes more carbon dioxide to the atmosphere than it removes.
Greenhouse Gas Removal (GGR)	<u>Greenhouse gas removal (GGR) is an umbrella term covering both carbon dioxide removal and the capture and storage of other kinds of greenhouse gases, such as methane. There are currently very few proposals to capture greenhouse gases other than carbon dioxide.</u>
Lifecycle Emissions	Lifecycle emissions include all of the carbon dioxide emissions and removals associated with an activity or with the production and use of an energy carrier, such as electricity or jet fuel. For instance, the lifecycle emissions of corn ethanol include not just the carbon dioxide emitted by burning the ethanol, but also the carbon dioxide removed from the atmosphere as the corn grows; the carbon dioxide emitted during the harvesting, transporting, and processing of the corn; et cetera. Calculating the lifecycle emissions of a product or activity requires making choices about how to define the boundaries of the system used to produce and consume the product or conduct the activity. This means that different analyses can produce very different estimates of the lifecycle emissions for the same product or activity.

Natural Climate Solutions	Natural climate solutions involve conserving, restoring, or better managing ecosystems to remove carbon dioxide from the atmosphere. Examples include allowing forests to regrow, restoring mangroves and other wetlands, and switching to restorative agricultural practices, such as cover crop rotation, that support healthy soils. These ecosystems capture carbon dioxide from the air and sequester it in plants, soils, and sediments.
Nature-Based Solutions	<u>Nature-based solutions is a synonym for natural climate solutions.</u>
Negative Emissions	Negative emissions refers to removing carbon dioxide (or other greenhouse gases) from the atmosphere. The "negative" in "negative emissions" means "less than zero." See also lifecycle emissions, negative emissions technologies (NETs), net negative emissions, net zero emissions.
Negative Emissions Technologies (NETs)	Negative emissions technologies (NETs) are technologies for implementing carbon dioxide removal. They are called negative emissions technologies because their lifecycle emissions are below zero, meaning that they remove more carbon dioxide from the atmosphere than they emit. Some people include practices such as restorative agriculture as negative emissions technologies, while others restrict the terms to engineered approaches to carbon dioxide removal, such as BECCS or direct air capture with carbon storage (DACCS).
Net Negative Emissions	A country, company, etc. or a process produces net-negative emissions if it removes more carbon dioxide from the atmosphere than it emits. For instance, if a country emits one billion tons of carbon dioxide per year but uses carbon removal to remove two billion tons of carbon dioxide per year, the country would have net negative emissions. See also net zero emissions, negative emissions, negative emissions technologies (NETs).
Net Zero Emissions	Net zero emissions is usually used as a synonym for carbon neutrality. A country, company, or other entity reaches net zero emissions when it is carbon neutral. See also net negative emissions.
Soil Carbon Sequestration	Soil carbon sequestration, also known as "restorative agriculture" or "regenerative agriculture," includes various ways of managing land, especially farmland, so that soils absorb and hold more carbon. See our Soil Carbon Sequestration Fact Sheet for more information. See also natural climate solutions.

<p style="text-align: center;">Carbon Removal Corporate Action Tracker Institute for Carbon Removal Law and Policy American University</p> <p style="text-align: center; font-size: small;">Please email icr@american.edu if you have other interesting examples of carbon negative or carbon-neutral with carbon removal pledges. To read more about the Action Tracker, visit our blog.</p>							
Agriculture	03/30/2020	2020	Archer Daniels Midland	ADMD announced a new plan to reduce its absolute greenhouse gas emissions by 25% and its energy intensity by 15% by 2035. The new goals follow on ADM's original "15-20" plan, unveiled in 2011, in which the company committed to percent improvements in energy use, greenhouse gas emissions, water and waste by landfill by 2020. After meeting those goals ahead of schedule, ADM engaged WSP Global, an engineering professional services firm, to conduct an in-depth feasibility study to help shape a new set of commitments to combat climate change.	Archer Daniels Midland Company (NYSE: ADM) announced in 2017 the Hilosa Industrial Carbon Capture and Storage (ICCS) project, a partnership to safely and permanently store more than 1 million tons of carbon dioxide a year, has begun operations. The project captures carbon dioxide, which is created as a byproduct at ADM's Decatur corn processing facility, and stores it safely, almost a mile and a half underground in the Mt. Simon Sandstone.	Archer Daniels Midland Pledge	
Agriculture		2019	Olam International	Race to Zero: Net Zero 2050 - Commit to achieve net zero CO2 emissions by 2050	Olam has cited CCS-based removals such as Bioenergy with carbon capture and storage, Direct Air carbon capture and storage) They are in the process of developing a land tokenisation and carbon trading platform using blockchain. Based on the commitments made by countries under the Paris accord to bring down their emissions by 2030 and 2050, and the need to get to net zero emissions by 2050 to limit global warming to under 1.5 C, they believe the carbon trading market and offsetting solutions market will grow considerably in the next several years.	Olam Pledge	II
Architecture and Design	8/2/2021	2021	Deceun	Deceun is committing to becoming a net-zero business by 2025.	It will take us a while to fully understand our Scope 3 emissions but we're not going to wait until we have a concrete figure for our carbon footprint before we start working to eliminate it. By the end of the year, we will establish a portfolio of carbon removal schemes that we pay to capture atmospheric carbon on our behalf to cover the rest of our Scope 3 emissions. We will use providers that have been audited by the Shopify Sustainability Fund. These include net-zero, with whom we are already offsetting our website emissions (see above). We will grow our portfolio over the coming years to ensure we are net-zero by 2025.	Deceun Pledge	
Automotive	9/7/2021	2021	Audi	By 2025, the Volkswagen Group wants to reduce the ecological footprint of cars and light utility vehicles along the entire value chain by 30 percent relative to 2015. Audi has therefore set ambitious targets in all areas of the company with the goal of achieving net CO2-neutrality company-wide by 2050.	Audi has paid Climeworks to capture and remove 1000 tons of carbon dioxide from a new direct air capture facility in Iceland.	Audi Pledge	New York Times Coverage
Aviation	9/13/21	2021	Association of Asia Pacific Airlines	The Association of Asia Pacific Airlines (AAPA) announced its commitment to a goal of net zero emissions by 2050. The more ambitious goal of net zero emissions surpasses the existing industry commitment to halving carbon emissions by 2050.	ICAO Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA) has an integral part to play in achieving this ambitious long term commitment. It is the agreed global mechanism for offsetting growth in international aviation CO2 emissions since 2020. AAPA wholly supports ICAO's efforts on this front, and will continue to encourage States to fully participate in the scheme. In addition, investment in emerging sources of energy such as direct carbon capture and carbon sequestration when these become viable, could complement the industry's efforts towards achieving net zero emissions.	AAPA Pledge	
Aviation	4/21/21	2021	Alaska Airlines	Alaska Airlines today announced its commitment and roadmap to reduce the company's carbon emissions to net-zero by 2040 , and commitments across carbon, waste, and water impacts by 2025. Today's announcement included the release of Alaska's 2020 LIFT Sustainability Report detailing the company's broader climate change strategy, including waste and water initiatives.	Because aviation is one of the most difficult sectors to decarbonize, Alaska will also work with science and technical advisory Carbon Direct to identify and set credible, high-quality carbon offsetting technologies to close any remaining gaps on the path to net-zero.	Alaska Airlines Pledge	
Aviation	12/10/20	2020	United Airlines	United is pledging to become 100% green by reducing its greenhouse gas (GHG) emissions by 100% by 2050. The airline will advance towards carbon neutrality by committing to a multimillion-dollar investment in revolutionary atmospheric carbon capture technology known as Direct Air Capture - rather than indirect measures like carbon-offsetting - in addition to continuing to invest in the development and use of sustainable aviation fuel (SAF). With this unprecedented announcement, United becomes the first airline in the world to announce a commitment to invest in Direct Air Capture technology.	United intends to make a multimillion-dollar investment in 1PointFive , a partnership between One Low Carbon Ventures, a subsidiary of Occidental (NYSE:OXY), and Ruseant Capital Management. 1PointFive's mission is to curb the rise in global temperatures by physically removing carbon dioxide (CO2) from the air using Direct Air Capture technology licensed from Carbon Engineering.	United Pledge	
Aviation	2/17/20	2020	Delta Airlines	Delta Air Lines has committed \$1bn over the next decade to make its business carbon neutral , with the company pledging to reduce its reliance on the carbon offset market. In 2012, Delta became the first US airline to voluntarily cap emissions at 2012 levels, despite growing the company by 29%, but this was largely achieved through the purchase of more than 16 million verified carbon offsets.	The airline will continue to focus on the removal of carbon emissions from the atmosphere by investing in forestry, wetland restoration, grassland conservation, marine and soil capture , and other negative emissions technologies.	Delta Pledge	Forbes Magazine NPR, The Guardian, World Economic Forum Journal of Climate Production The New York Times Business & Policy, CNN Business
Aviation	1/15/20	2020	Ethihad	Ethihad committed to a minimum target of zero net carbon emissions by 2050 and halving of its 2019 net emission levels by 2035	"The global focus on the environment and the urgency of reducing carbon emissions has never been greater. Ethihad Aviation Group, together with its partners, is taking an active role in reducing the impact of aviation on the environment through initiatives ranging from optimized fuel management to sustainable financing practices."	Ethihad Pledge	Business Travel News
Aviation	1/6/20	2020	JetBlue	JetBlue will offset carbon dioxide emissions from jet fuel for all domestic JetBlue flights beginning in July 2020, making it the first major U.S. airline to take this critical and measurable step toward reducing its contribution to global warming. JetBlue also announced plans to start flying with sustainable aviation fuel in mid-2020 on flights from San Francisco International Airport.	JetBlue will partner with Carbonfund.org and iStock to offset an additional 15.17 billion pounds of emissions per year - the annual equivalent of removing more than 1.5 million passenger vehicles from the road. JetBlue will purchase sustainable aviation fuel from Neste.	JetBlue Pledge	BusinessWire Quarte
Aviation	11/19/19	2019	Easy Jet	Easy Jet committed to net-zero carbon flights by offsetting all jet fuel emissions, which would cost about £25m in the next financial year.	Easy Jet will offset the carbon from the fuel used for every flight, by investing in projects that include reforestation, protecting against deforestation, and renewable energy.	Easy Jet Pledge	CNN Business Environment MarketPlace
Aviation	11/11/19	2019	Qantas Airways	The Qantas Group will reach net-zero carbon emissions by 2050 in an expansion of the airline's commitment to a more sustainable aviation industry. It will invest \$50m in sustainable fuel over the next decade and offset growth in emissions from international and domestic flights in order to reach net-zero emissions by 2050. British Airways has announced plans to offset the carbon emissions from all of its UK domestic flights. The move will take effect from January 2020 and will cover up to 75 domestic flights per day between London and ten UK cities. BA says it will be the first UK airline to offset for all domestic flights. In addition, the carrier says that from next year its carbon emissions on international flights will be capped through the United Nation's offset scheme, and BA's parent company IAG has committed to achieving net-zero carbon emissions by 2050.	Existing projects benefiting from the offsets include protecting the Great Barrier Reef, which has seen the number of new corals fall by 99% after the climate change-induced mass bleaching of 2016 and 2017.	Qantas Pledge	Reuters Sampling Flying, Edie, Travel Newstrom, The Straits Times
Aviation	10/1/19	2019	British Airways	The carrier says it will invest in verified carbon reduction projects worldwide, including renewable energy, rainforest protection, and reforestation programmes to offset their emissions.		British Airways Pledge	Atlanta Business Chronicle Bloomberg Green The Wall Street Journal Aviation Hub TechCrunch
Aviation	3/15/21	2021	Air Canada	Air Canada has a goal to have all global operations greenhouse gases net-zero by 2050.	Air Canada plans to shift to sustainable air fuel, more renewable resources, and to currently exploring negative emissions technologies as offsets. More of this information is to be provided in the coming weeks.	Air Canada Pledge	
Aviation	July 27, 2021	2021	BAE Systems	Joined the United Nations 'Race to Zero' campaign, committing to achieve net-zero greenhouse gas emissions across their operations by 2050 across their supply chain by 2050.	BAE systems is focused on reducing the carbon footprint of their supply chain and operations rather than implementing any CDR.	BAE Systems Pledge	Energy Live News
Construction	4/22/21	2021	BNBuilders	BNBuilders announced clean construction targets for 2040, which include a commitment to achieve net-zero carbon, a decade ahead of the Paris Agreement's goal, and an ambition to generate zero waste.	Advocate for alternative methods of construction such as prefabrication, modularization, and materials, like mass timber , that reduce overall waste generation;	BNBuilders Pledge	
Consulting	9/1/20	2020	Boston Consulting Group	BCG committed to net-zero climate impact by 2050, they declared carbon neutrality in 2018. They "will reduce their footprint through a 90% reduction in Scope 1 and Scope 2 emissions per full-time equivalent employee (FTE) and a 30% reduction in Scope 3 business travel emissions per FTE by 2025." They are also committing \$400 million "to enable BCG teams to drive climate and environmental impact across industries and countries." Beyond 2050, they plan to become carbon positive by removing more carbon than they emit.	BCG will remove its remaining emissions by investing in nature-based and technological CDR at a rate of \$0.50 per ton of unavoided carbon by 2050.	BCG Pledge	Forbes Magazine Forbes Magazine Business Review Niskanen Centre Investment Analyst Global Custom PR Newswire

Education	05/01/21	2021	Australian National University	ANU has announced the Below Zero Initiative, which aims to transition ANU from being part of the problem to becoming part of the solution - from a source of greenhouse gases (GHG) to a sink for atmospheric carbon dioxide. The goal is for ANU to achieve below zero emissions by 2050 for energy, waste, work travel and direct on-campus greenhouse gas emissions. Our approach integrates practical emission-reductions with research and teaching activities at ANU. We aim to use our expertise to drive innovation in this vital sector. ANU is one of the first universities in the world to adopt such ambitious targets including below zero emissions goal. As Australia's national university, we are aiming to promote innovation, engage the community and provide leadership to other organisations in Australia and around the world.	Carbon sequestration: Developing and researching approaches to actively remove greenhouse gases from the atmosphere. Currently, there is a dearth of research on best-practice approaches that can meet land-based carbon sequestration and address other goals concurrently. These approaches could have co-benefits around biodiversity, agricultural production, water resource management, indigenous livelihoods and cultural practices and the government arrangements needed to support good decision-making. The University is establishing a research and education network (focused on building capacity around land management) for carbon sequestration . We are pursuing funding opportunities and partnerships in this field, including with Indigenous communities.	ANU Pledge		
Energy	4/19/21	2021	San Diego Gas & Electric	Building on the sustainability strategy it released last October and its pledge to reach net zero greenhouse gas (GHG) emissions by 2045 , San Diego Gas & Electric (SDG&E) announced it is developing two hydrogen pilot projects, nearing completion of an additional battery storage facility and will break ground on another, and launching a vehicle-to-grid pilot program (featuring six electric school buses, among other efforts).	The company plans to employ carbon capture and storage to help it reach the net-zero target. Carbon capture and storage is a process in which CO2 from power plants and factories is trapped or taken from the air and then deposited underground. **This was indicated in an interview with the San Diego Tribune, and is not yet included in the pledge from the company.	San Diego Gas & Electric Pledge		
Energy	3/4/21	2021	Chevron	Chevron Corporation, Schlumberger New Energy, Maxwell and Clean Energy Systems today announced plans to develop a ground-breaking (isoelectric) with carbon capture and sequestration (BECS) project designed to produce carbon negative power in Mendota, California.	The BECS plant will convert agricultural waste biomass, such as almond trees, into a renewable synthesis gas that will be mixed with oxygen in a combustor to generate electricity. More than 90% of the carbon from the BECS process is expected to be captured for permanent storage by injecting carbon dioxide (CO2) underground into nearby deep geologic formations.	Chevron Pledge	BioMass Magazine	
Energy	10/13/20	2020	Iera	Iera pledged to achieve zero carbon emissions by 2050 .	Iera aims to eliminate its carbon emissions and will offset remaining emissions in 2050 using unspecified technologies.	Iera Pledge	Bloomberg Quill The Asian Times Energy World Morning Financial Review Energy World Energy World	
Energy	11/2/20	2020	Equinor	Equinor climate ambitions: Become net zero by 2050. The ambition includes scope 1, 2 and 3 GHG emissions, where scope 3 emissions represent a calculation of indirect emissions from customers' use of Equinor's equity production volumes. Reduce emissions from oil and gas. Maintain industry leading carbon efficiency by (i) aiming to reach upstream ~8 kg CO2 per boe by 2025, (ii) achieving carbon neutral global operations by 2050 (including reducing absolute greenhouse gas emissions from operated offshore fields and onshore plants in Norway towards near zero by 2050 without offsets, and (iii) ensuring no routine flaring and near zero methane emissions intensity by 2040. Grow in renewable energy. Expecting a production capacity of 4.6 GW by 2026 and 12-16 GW by 2035. Equinor equity. Reduce net carbon intensity to zero by 2050.	Net-zero emissions requires a well-functioning market for carbon capture and storage (CCS) and natural sinks, as well as the development of competitive technologies for hydrogen. Building on its capabilities from oil and gas, Equinor is well positioned to provide low-carbon technologies and establish zero-emissions value chains. Equinor is driving the development of these technologies through projects such as Northern Lights, which aims to store CO2 from industrial sites across Europe. We also assume that an increasing share of oil and gas will be used for petrochemicals towards 2050.	Equinor's Pledge		
Energy	5/27/20	2020	Southern Company	Southern Company moved to a long-term greenhouse gas (GHG) emissions reduction goal of net-zero emissions by 2050. This replaces the low- to no-carbon goal the company unveiled in April of 2018.	The company will continue to reduce GHG emissions and continue their commitment to energy efficiency, but also incorporate negative carbon sources, including technology-based approaches such as direct air capture of carbon as well as natural methods like afforestation .	Southern Company's Pledge	GreenBiz Custom PR Environmental & Energy Leader WASH Custom PR	
Energy	5/5/20	2020	Total S.A.	Total has a new climate ambition to become net-zero by 2050.	Total is committed to reducing its carbon footprint when producing, transforming and delivering energy to markets. First, Total has made public a target to reduce its absolute emissions from its operated oil & gas facilities to less than 40 Mt by 2025. This target, that is an element of executive (and CEO) compensation, has been set in absolute terms, taking account of the growth of the company which will represent the equivalent of around 10 Mt by 2025. Total will continue to reduce these emissions further beyond 2025. Beyond its own operations, Total has also set the ambition to reduce the carbon intensity of the energy products used by its customers with intermediate steps of 15% by 2030 compared to 2015 and 25% to 40% by 2040.	Total Pledge	World Oil Magazine Zetia S.A. Magnolia Oil and Gas Houston Chronicle	
Energy	4/16/20	2020	Royal Dutch Shell	Royal Dutch Shell has committed to being net-zero on all emissions from product manufacturing by 2050 or sooner. Additionally, they will reduce the net carbon footprint of the energy products they sell by 30% by 2035 and by 65% by 2050.	Shell plans to offset its own emissions by trapping as much carbon as its business operations cause through new carbon capture technologies or through solutions such as reforestation .	Royal Dutch Shell Pledge	Carbon Brief Reuters Parsons Bloomberg Green CNBC The New York Times Green Tech Media Lombard & Broderick HMM	
Energy	2/24/20	2020	Consumers Energy	Consumers Energy announced a goal to achieve net-zero carbon emissions by 2050, the next step in an industry-leading Clean Energy Plan that protects the planet for future generations.	"Strategies such as carbon capture and sequestration or large-scale tree planting "	Consumers Energy Pledge	Union - PR Newswire Daily Energy Insider S&P Global Plans Union	
Energy	2/12/20	2020	BP	BP has pledged to reach net-zero across BP's operations emissions by 2050 or sooner. They also aim to be net-zero on carbon in BP's oil and gas production on an absolute basis by 2050 or sooner. Additionally, see a 50% cut in the carbon intensity of products BP sells by 2050 or sooner.	BP plans to achieve their pledge through CCS and natural sinks.	BP Pledge		
Energy	12/1/19	2019	Repsol	Repsol announced a commitment to net-zero emissions by 2050 in December 2019. Repsol's commitment is particularly noteworthy because it also covers the emissions released from the oil and gas it sells (i.e. Scope 3 emissions). These emissions are generally much larger compared to the emissions generated from the company's own operations.	Repsol said it would pursue a number of measures to reach its goals. These include scaling up its renewable energy portfolio, increasing its production of biofuels and chemical products with low-carbon footprints. In addition, the company said it would use carbon capture technologies, reforestation , and natural climate solutions if it was unable to reach its goals via other means.	Repsol Pledge		
Energy	9/24/19	2019	NRG Energy	NRG Energy has pledged to have net-zero emissions by 2050.	NRG Energy has stated that CCN (carbon capture and storage) to achieve their pledge.	NRG Energy Pledge		
Energy	9/17/19	2019	Duke Energy	Duke Energy announced an updated climate strategy with a new goal of net-zero carbon emissions from electric generation by 2050. The company is accelerating its near-term goal by cutting its carbon dioxide emissions by half or more from 2005 levels by 2030.	"Getting to net-zero carbon emissions, while ensuring energy remains reliable and affordable, will require new technologies. That's the very reason we need to act now. We must continue leveraging today's technologies while sustaining investment in innovation for this vision to become reality."	Duke Energy Pledge		
Energy	5/20/19	2019	Xcel Energy	Xcel Energy has committed to having net-zero carbon emissions by 2050.	Xcel is still in the process of determining how it will fulfill its commitment.	Xcel Energy		
Energy	3/23/21	2021	Southern California Gas Company	SoCalGas has a carbon neutrality goal for 2045 in alignment with California state carbon neutrality goals.	By 2045, SoCalGas plans to have net-zero energy for 100% of their buildings and all zero-emissions vehicles. By 2050 they intend to reduce fugitive methane emissions by 40%, deliver 20% renewable natural gas, and implement hydrogen pilot projects. They are investing in CCUS and direct air capture technology .	SoCalGas Pledge	CalMatters on SoCalGas Co. Net Zero Pledge	
Energy	1/13/21	2021	Occidental Petroleum	To implement a Net Zero Energy Cycle which mimics the natural carbon cycle by pulling CO2 directly from the atmosphere to be sequestered - at an industrial scale. This allows permanent storage of CO2 captured in geologic formations in an amount equal to that which is emitted through the production, processing and combustion of oil and fuels. World Bank's Zero Routine Flaring by 2030 Initiative - Occidental is the first U.S. oil and gas company to endorse this initiative. Oil and Gas Climate Initiative - Occidental is one of 12 companies to join the Oil and Gas Climate Initiative to advance technology and projects for a lower-carbon future. Getting to Zero Coalition - Occidental is a member of the Getting to Zero Coalition, a partnership between the Global Maritime Forum, the Friends of Ocean Action, and the World Economic Forum that brings together global decision-makers from the shipping and energy sectors and governments. The Coalition is committed to getting commercially viable deep sea zero-emission vessels powered by zero-emission fuels into operation by 2050 - maritime shipping's moon-shot ambition. American Petroleum Institute's The Environmental Partnership - Occidental is a founding member of the American Petroleum Institute's The Environmental Partnership to reduce methane emissions in operations.	This cycle starts with capturing CO2 from the atmosphere via Direct Air Capture (DAC) (or industrial sources). The CO2 is then injected into a producing oil and gas reservoir. The CO2 displaces oil and gas trapped in the rock and moves it toward a producing oil and gas well, while permanently trapping the CO2 underground .	https://www.oil.com/OilBusiness/Carbon-Management/Pages/default.aspx , https://www.oil.com/OilBusiness/Carbon-Management/Pages/default.aspx	https://www.epa.gov/environmental-climate-change/news/20210113-11746643453129564	
Energy	8/12/21	2021	ExxonMobil	ExxonMobil has launched the Low Carbon Solutions business to invest \$3 billion over the next four years in low-emission energy solutions. The initial focus area is scaling up carbon capture and storage.	It was the first company to capture more than 120 million metric tons of CO2 through CCS, which is equivalent to removing the annual emissions of more than 25 million cars. ExxonMobil is also conducting early-stage research on two additional CCS technologies. One is using a fuel cell to capture emissions before they are released from a natural gas-fired power plant or an industrial facility. The other, known as direct air capture, aims to capture CO2 emissions directly from the atmosphere.	ExxonMobil Pledge	Forbes Magazine Article	

Energy	5/27/21	2021	Eni UK	Decarbonisation is structurally embedded in Eni's overall strategy with the new target of Net Zero emissions at 2050 . Eni and Progressive Energy Limited have announced the signing of a framework agreement to further accelerate carbon capture and storage (CCS) within the HyNet North West low carbon cluster project.	Under the agreement, Eni will develop and operate both the industrial and offshore transportation and storage of CO2 in their Liverpool Bay assets, while Progressive Energy will lead and coordinate the capture and hydrogen aspects of the project on behalf of HyNet North West, thereby linking together the sources of CO2 emissions to Eni's transportation and storage infrastructure .	Eni Pledge	Reuters Magazine Article	
Energy	8/15/19	2019	France's Total	Total aspires to become a major player in CCUS technologies , which are vital to achieving carbon neutrality in the second half of the century.	In the area of CCUS , the companies will further develop joint research into new technologies covering carbon capture, storage solutions and enhanced oil recovery projects based on CO2 usage.	Total's Pledge	Reuters Magazine Article	
Energy	11/11/20	2020	ADNOC (UAE)	ADNOC and Total will jointly explore opportunities to reduce CO2 emissions, improve energy efficiency and use renewable energy for oil and gas operations. ADNOC will act towards its 2050 net-zero ambition alongside its long-standing key purposes.		ADNOC Pledge	CNBC News	
Energy	8/26/21	2021	China National Petroleum Corporation	CNPC publishes only its Scope 1 and 2 greenhouse gas emissions but aims to peak its carbon emissions by 2025, aims for net-zero status by 2050.	CNPC focuses on carbon capture, utilization, and storage (CCUS) projects and they are banking on hydrogen.	CNPC Pledge	CSIS Analysis of Chinese Organizations	
Energy	8/27/21	2021	Linde (Ireland)	Amidst an international focus on achieving net-zero and carbon emission reduction, Linde has set targets to improve efficiency in several areas of its gas production process including its air separation unit (ASU) after revealing that 13% of its Scope 1 emissions were from ASUs. The company also plans to spend at least a third of its annual R&D budget on decarbonisation, including the development of "industry-leading" carbon capture technologies.	Initiatives include developing industry-leading carbon capture technologies, investing in promising green hydrogen technologies and driving operational efficiency to further reduce GHG intensity.	Linde Pledge	Gas World Article	
Energy	11/16/20	2020	Aker Solutions	Aker Solutions aims to generate about half of its revenue from renewable or distinct low-carbon solutions by 2030, according to the company's 2025/30 strategy. The company aims to derive 20 percent of its revenue from renewable energy and 25 percent from distinct low-carbon solutions by the year 2030. Summarized, the update is labelled "20/25/30".	Lower the carbon emissions from their production via electrification while also designing and delivering renewable energy solutions for offshore wind, carbon capture, utilization and storage (CCUS) and other emerging markets.	Aker Solutions Pledge	QE Digital News	
Energy	4/4/21(updated 6/4/21)	2021	Drax	The UK needs negative emissions technologies to meet its 2050 net-zero target to help combat the global climate crisis. Drax employs bioenergy with carbon capture and storage (BECCS) as the most scalable negative emissions technology available today to remove CO2 from the atmosphere.	With an effective negative emissions policy and investment framework from government Drax could deploy bioenergy with carbon capture use and storage (BECCUS) on two of their biomass generating units by 2030.	Drax Pledge	Energy Monitor AI Coverage	
Energy	06/17/2021	2021	TC Energy	TC Energy has ambitious greenhouse gas (GHG) emissions reduction targets including Reduce GHG emissions intensity from their operations 50% by 2030 and position to achieve zero emissions from their operations, on a net basis, by 2050. These targets address Scope 1 and 2 emissions, using a 2019 baseline year for planning purposes. The GHG Emissions Reduction Plan outlines strategies to work towards these goals, while also developing next-generation energy solutions for the future.	For Canada to achieve its enhanced climate targets, including a 40-45% reduction in greenhouse gas emissions below 2005 levels by 2030, CCUS technology and infrastructure will need to play a vital role. Pembina and TC Energy are uniquely positioned to take a leadership role in the transportation of CO2 given their collective skills and extensive network of pipeline infrastructure. As a hub-based infrastructure solution accessible to Alberta's largest industrial emitters across industries, ACG will pave the way for Canada to successfully meet its emissions reduction objectives and provides a tangible example of Pembina and TC Energy's commitment to energy diversification, industry collaboration and a lower carbon future.	TC Energy, GHG Emissions, Reduction Plan, World Scale, Carbon Transportation and Sequestration Solution		
Energy		2020	PetraChina Co.	Pledged to strive to peak its carbon emissions by 2030 and to achieve "carbon neutrality" by 2060.	Implementing CCUS technology, carbon Sequestration through carbon sink forests totaling 286.6 million square meters, planting 2.811 Million trees. The carbon dioxide flooding demonstration project in Jilin Oilfield has accumulated more than 1.9 million tons of carbon dioxide as well.	PetraChina Pledge		El
Finance	08/30/21	2021	Accelerate Financial Tech-Bitcoin ETF	Accelerate Financial Technologies Inc. plans to launch a carbon-negative Bitcoin exchange-traded fund by planting trees to offset the carbon-footprint environmental impact of cryptocurrency mining.	Carbon sequestration via planting of trees: pledges to plant 3,450 trees for every C\$1 million (\$788,200) invested into its carbon-negative Bitcoin ETF, estimating this will result in the sequestration of about 1,000 tons of carbon dioxide.	Accelerate Pledge		
Finance	05/27/21	2021	Crypto.com	Crypto.com announced an ambitious goal of becoming carbon negative within 18 months.	The second phase will identify the most effective ways to offset the carbon generated, with the support of accredited organizations specializing in carbon offsetting and reforestation .	Crypto.com Pledge		
Finance	May 7th, 2021	2021	Manulife	Manulife is proud to share they are net zero in their operations, uniquely positioned due to the carbon removals from our substantial owned and operated forests and farmland outstripping emissions. • Manulife is committing to reduce absolute scope 1 and 2 emissions 35 per cent by 2035. We will take steps such as enhanced efficiency measures, fuel switching, and use of onsite renewables in our buildings to achieve this target.	• We manage over 5.8 million acres of forestry and farmland globally – 100% of our managed forests are certified sustainable by third parties. • INRQ has conserved over 472,000 acres through its Semtimore Lands Program. • There are ~ 148 trees on our properties in the US, Canada, New Zealand, Australia, and Chile – and we planted 1.2B over the past 36 years. • Over the past 5 years we've removed an average of 2.87 million tons of CO2 from the atmosphere annually.	Manulife Pledge	The 3 Acres Manulife Will Focus on to Reach Net Zero by 2050	
Finance	05/12/21	2021	TIAA	TIAA, a leading provider of secure retirements and outcome-focused investment solutions to millions of people and thousands of institutions, has committed to achieving net zero carbon emissions in its General Account by 2050. The \$200 billion insurance investment account that supports the flagship TIAA Traditional annuity will significantly reduce the carbon footprint of its investments and balance any remaining emissions with investments that remove carbon.	Nature-based solutions including afforestation, reforestation and sustainable farming will also contribute to achieving net zero carbon emissions.	TIAA Pledge		
Finance	04/21/21	2021	Visa	Visa is looking broader and longer-term by committing to net-zero emissions by 2040 , a timeframe at least 10 years ahead of the Paris Climate Agreement. In addition, we're joining likeminded industry leaders in signing The Climate Pledge, co-founded by Amazon and Global Optimism. They are also committing to set Science Based Targets at the 1.5 degree Celsius ambition level and have joined the Climate Business Network, a World Wildlife Fund initiative to accelerate efforts to net-zero. Our new net-zero commitment, complemented by our signing of The Climate Pledge and joining the UN Race to Zero and WWF Climate Business Network, is aligned with emerging global standards and will include working across their value chain to achieve this goal.	Their carbon offset portfolio includes projects spanning our geographic regions, such as forest preservation in the U.S. and Canada, reforestation in Brazil , renewable energy in Turkey and clean cookstoves in India and Uganda.	Visa Pledge		
Finance	10/9/20	2020	HSBC	HSBC pledged to be net-zero in their own operations and supply chain by 2050. HSBC will target net-zero financial carbon emissions across its entire customer base by 2050 at the latest, and provide between \$750 billion and \$1 trillion in financing by 2030 to help clients make the transition.	HSBC is still in the process of determining how it will achieve its commitment but plans to help develop a financing carbon offset market.	HSBC Pledge		
Finance	9/21/20	2020	Morgan Stanley	Morgan Stanley committed to reaching net-zero financial emissions by 2050. In 2017, Morgan Stanley committed to carbon neutrality across global operations by 2022.	Morgan Stanley is still in the process of determining how it will fulfill its commitment.	Morgan Stanley Pledge		
Finance	4/21/20	2020	Harvard	Harvard's Endowment will become greenhouse-gas (GHG) neutral by 2050.	This commitment is not the same as fossil-fuel divestment; instead, "carbon neutrality" means reaching a "net zero" carbon footprint through a combination of reducing emissions and offsetting carbon-dioxide emissions with investment in technologies that remove carbon from the atmosphere.	Harvard Pledge		
Finance	1/1/2020	2020	Barclays	Barclays has a plan to be net-zero by 2030 in Scope 1 (all direct GHG emissions) and Scope 2 (indirect GHG emissions from the consumption of purchased electricity and heat). They have also set a goal to be net-zero in Scope 3, across all financing activity, in all sectors by 2050.	Barclays' strategy is to align with the goals of the Paris Agreement and will use the International Energy Agency's Sustainable Development Scenario (SDS) as a starting point. The SDS explicitly excludes carbon removal because of uncertainty around it, but notes that adding carbon removal would make the SDS compatible with 1.5C.	Barclays Pledge		
Finance	3/1/2021	2021	Citibank	Citibank plans to have net-zero greenhouse gas emissions by 2050 (full plan to be announced within a year), starting with company operations reductions by 2030 and its lending portfolio by 2050. They plan to have a 45% reduction in greenhouse gas emissions by 2025.	Within their portfolio, Cit plans to incorporate sustainable agriculture and land use to eventually reach carbon removal goals. They intend to make more of their facilities sustainable through renewable energy, assist carbon-intensive groups within their portfolio to build net zero goals, and significantly phase out financing of coal projects. Cit also supports putting a price on carbon.	Citi Pledge	Citi's Environmental and Social Policy, Framework	
Finance	2/11/2021	2021	Bank of America	Bank of America intends to be net-zero by 2050 for all operations, supply chain, and financing activities.	Bank of America supports advancement and financing of carbon capture, use and sequestration technology and seeks to stop financing to most thermal coal companies by 2025. They will only consider refinancing if these plants use CCUS.	Bank of America's Pledge	Environmental and Social Risk Policy, Framework Task Force on Climate-related Financial Disclosures	

Finance	3/8/2021	2021	Wells Fargo	Wells Fargo will transition to net-zero emissions for all of its financing, and financed emissions by 2050. While making emission reduction targets and increasing capital towards them, it also strives to help its clients reduce their emissions. They have set up the Institute for Sustainable Finance to provide \$500 billion towards sustainability projects and to assist its clients in their emissions reductions portfolios by 2030.	Wells Fargo has created three "Scope" levels for evaluation of their carbon reduction goals, reviewing: 1) direct greenhouse gas emissions, 2) indirect greenhouse gas emissions, and 3) additional business-travel emissions. Notably, they are making changes towards renewable energy usage and investments into carbon neutral research projects. It is also plans to phase out financing of thermal coal projects by 2030.	Wells Fargo Pledge	Wells Fargo Newsroom	
Finance	10/6/2020	2020	JP Morgan Chase	JP Morgan Chase intends to achieve net-zero emissions by 2050.	JP Morgan Chase is committing to not only be 100% renewable but also be carbon neutral starting in 2020. They have offered to help clients in their portfolio shift towards net-zero goals and are allocating \$200 billion towards green project assistance, as well as \$1 billion in green bond issuance for eligible green projects.	JP Morgan Chase Press Release	JP Morgan Chase Sustainability Goals	
Food and Beverage	01/15/19	2019	Coca Cola HBC Switzerland	Coca Cola HBC Switzerland, a vendor that makes Vuber water, has partnered with Climeworks, which specializes in removing carbon dioxide from the atmosphere. This project to capture CO2 comes as a strategic experiment, as the beverage industry is one of the world's largest users of CO2 feedstocks using 10 million tons of CO2 per year. Carbon capture technology aims to allow Coca Cola to innovate in its supply chain by simultaneously reducing costs and removing CO2 emissions from the earth's atmosphere. A very bold target.	Climeworks is building machines with filters that suck in carbon dioxide as air passes through. After a filter becomes saturated, it is heated to about 212 degrees Fahrenheit, which releases the Carbon Dioxide and allows the gas to be collected. One filter can be reused for several thousand cycles. This is Direct Air Capture (DAC) . Carbon capture and its subsequent storage is described by the process of capturing waste carbon dioxide (CO2) from sources such as fossil fuel power plants, transporting it to a storage site, and then depositing it where it will not enter the atmosphere. Normally in an underground geological formation, in this case, the carbon will be used to carbonate favorite soft drinks.	Coca Cola HBC Switzerland Pledge	Business Insider	
Heavy Industry (steel, cement)	4/21/21	2021	United States Steel	United States Steel Corporation (NYSE: X) ("U. S. Steel") today expanded its transformational commitment to sustainability by setting an ambitious goal targeting net-zero carbon emissions by 2050.	To achieve its net-zero goal for 2050, U. S. Steel expects to leverage its growing fleet of electric arc furnaces (EAF) coupled with other technologies such as direct reduced iron, carbon-free energy sources, and carbon capture, sequestration, and utilization. Achievement of the goal also depends on public-private collaboration across industries and global stakeholders to develop supportive innovative breakthroughs, including access to commercially available carbon-neutral electricity sources.	US Steel Pledge		
Heavy Industry (steel, cement)	9/21/20	2020	LafargeHolcim	On our way to becoming a net zero company, we are accelerating green construction by joining the net zero pledge with science-based targets. Walking the talk on our commitment, we are setting ourselves ambitious 2030 climate targets that are validated by the Science-Based Targets Accelerator (SBTi). Accelerating our reduction in CO2 intensity to exceed 20% (compared to our 2018 baseline). Partnering with SBTi looking beyond 2030, to support the development of the first climate targets for a 1.5°C future in the cement sector.	Reaching net zero in cement manufacturing which will require the deployment of carbon capture and usage or storage (CCUS) technologies at scale. The European Commission considers CCUS as one of the seven strategic pillars in their "A clean planet for all" strategy, and the IEA Roadmap for the cement sector projects CCUS to begin at scale from 2030 onwards.	LafargeHolcim Pledge		EI
Heavy Industry (steel, cement)	7/1/19	2019	ThyssenKrupp	Germany's largest steelmaker, ThyssenKrupp, announced it would be climate neutral by 2050.	ThyssenKrupp will pursue several measures to achieve carbon neutral steel. These include capturing emissions from steel mills and converting them into useful chemicals, as well as replacing the coal used in the steel production process with hydrogen.	ThyssenKrupp Pledge		
Heavy Industry (steel, cement)	5/13/19	2019	Heidelberg Cement	In addition to setting short-term targets for 2030, the company said their goal was to realize carbon neutral concrete by "2050 at the latest".	HeidelbergCement will improve its energy efficiency and increase its use of alternative fuels and raw materials. It will also need to continue developing new technologies for CO2 sequestration and use in the cement-making process.	Heidelberg Cement Pledge		
Heavy Industry (steel, cement)	1/1/2016	2016	SSAB	SSAB is taking the lead in decarbonizing the steel industry. With HYBRIT technology, SSAB aims to be the first steel company in the world to bring fossil-free steel to the market already in 2026. SSAB will be practically fossil free by 2045.	SSAB will cut their CO2 emissions in Sweden by 25% by as early as 2025, through the conversion of the blast furnace in Oxelösund, Sweden, to an electric arc furnace. Between 2030-2040, they plan to convert the blast furnaces in Luleå, Sweden and Raabe, Finland to eliminate most of the remaining CO2 emissions.	SSAB Pledge		
Hospitality	9/22/21	2021	Marriott	Marriott International, Inc announced it has submitted its letter to the Science Based Targets initiative, committing to: Set science-based emissions reduction targets across all scopes, in line with 1.5°C emissions scenario; and Set a long-term science-based target to reach net-zero value chain greenhouse gas (GHG) emissions by no later than 2050, in line with the criteria and recommendations of the Science Based Targets initiative.	Planting more than 415,000 trees over the last several years, including through the company's work as a founding member of the Evergreen Alliance, a select group of Arbor Day Foundation partners and collaborators committed to advancing trees and forests as natural solutions for corporate sustainability and citizenship goals. Innovative ecosystem restoration and carbon sequestration projects, such as working with The Ocean Foundation to remove and sequester sargassum seaweed, which has had devastating impacts on the environment. Their motto is "Do our best, remove the rest." They are setting an internal carbon levy of USD 100 to USD 200 per ton of CO2 on both direct and indirect carbon emissions. They will use the money level on unavoidable emissions to buy carbon removal certificates which will invest in carbon removal projects.	Marriott Pledge	USA Today Coverage	
Insurance	2/20/20	2020	Swiss Re	Swiss Re committed to achieving net-zero emissions in their operations by 2050.	They are setting an internal carbon levy of USD 100 to USD 200 per ton of CO2 on both direct and indirect carbon emissions. They will use the money level on unavoidable emissions to buy carbon removal certificates which will invest in carbon removal projects.	Swiss Re Pledge		
Logistics	2020		Brambles	2025 Business Positive targets. "Our commitment is to be nature positive by restoring forests, going beyond zero waste, and ensuring down more carbon than we produce, ultimately becoming a regenerative, nature positive business. Climate Positive targets. "Brambles commits to a 1°C climate future including a Paris Agreement aligned carbon neutrality SBT for our supply chain. 100% of our electricity will be renewable and all our operations will be carbon neutral by 2025."	According to their pledge, they will "enable the sustainable growth of two trees for every tree (they) use." They plan to use reforestation and afforestation to plant 66,944 trees in 2022.	Brambles Pledge		EI
Manufacturing	9/3/20	2020	Velux	Velux committed to becoming climate carbon neutral by 2041. This means capturing their historic emissions since 1941 and reducing future emissions. They have also pledged to be carbon neutral in operations (scope 1 and 2) and cut value chain emissions (scope 3) by 50% by 2030.	Velux has partnered with WWF to invest in forest conservation projects that will remove their historic carbon emissions (5.6 million tons).	Velux Pledge		
Manufacturing	9/24/19	2019	Saint-Gobain	Saint-Gobain commits itself to reach net-zero emissions by no later than 2050.	Saint-Gobain designs, produces and distributes solutions that contribute themselves to the reduction of CO2 emissions, including thermal insulation solutions that promote energy efficiency . Within only three months, thanks to energy savings, our insulation solutions compensate the CO2 emissions linked to their production. The 2050 vision is critical to drive our medium and long-term investment policy as well as industrial roadmap, R&D programs, or product development strategy. Saint-Gobain is already committed to reducing its CO2 emissions by 20% between 2010 and 2025. Various programs and tools have also already been implemented in order to support this target, like for instance an internal price of carbon, one for investments and one for R&D projects, to drive business decisions towards low-carbon solutions.	Saint-Gobain Pledge		
Manufacturing	1/28/21	2021	General Motors	General Motors plans to be carbon neutral by 2040 for its global products and operations.	GM's carbon neutrality plans come from its decarbonization portfolio, addressing this by sourcing 100% renewable power for all US-based locations by 2030 and globally by 2035. They plan to invest in carbon credits or offsets that are "efficient, equitable and inclusive". Additionally, they will further their electric vehicle output and provide increased amounts of charging stations, notably encouraged to be run by renewable energy.	General Motors Pledge		
Non-energy utilities	11/12/2020	2020	United Utilities	As part of their April 2019 Public Interest Commitment (PIC), English water companies made the commitment to achieve net zero carbon emissions for the sector by 2050. Today United Utilities has joined forces with the rest of the water industry to set out its plans to go carbon neutral by the end of this decade. Tree-planting, green vehicles and home-grown renewable power are all included in the ambitious plans for the North West. Water UK's Net Zero 2030 Roadmap is 20 years ahead of the UK Government's own legally binding target of 2050 and forms the world's first detailed plan to get an entire industry sector to net zero.	1,000 hectares of peat bog restoration will be completed by 2030, and more than 1 million trees will be planted as an effort to reduce carbon impacts. United Utilities also cites an increase in soil carbon enhancement as a goal for their neutrality in 2050. Case Study from Climate Pledge: "Rivington in Lancashire is the site of a pilot scheme to grow oak trees from acorns. 20,000 acorns were planted in October 2020, all collected from local oak trees, and they will help United Utilities to meet its target of planting more than 1 million new trees by 2030."	United Utilities Pledge		EI
Pharmaceutical/ Chemical	1/23/20	2020	AstraZeneca	Within this decade, AstraZeneca plans to remove more carbon from the atmosphere than its 65,000 employees and entire value chain add to it to become carbon negative across its business by 2030.	This carbon negative pledge will be realized through "AZ Forest", a 50-million-tree reforestation initiative that will be rolled out from 2020-2025.	AstraZeneca Pledge		
Pharmaceutical/ Chemical	03/01/2022	2022	Bayer AG	Race to Zero: Net Zero 2050 - Commit to achieve net zero CO2 emissions by 2050	Bayer has noted nature-based removals including reforestation, soil carbon enhancement in their pledge. "We strongly encourage public and private sector investments in innovations that support sustainable intensification of food production and advocate for policies and faster market mechanism that enable such innovations to provide opportunities for ecosystem diversity improvements and carbon removals due to the reduced land footprint of agriculture."	Bayer Pledge		EI

Power and Gas		2020	General Electric	In 2020, GE set a new goal of carbon neutrality by 2030 for GE's operations (Scope 1 and 2 emissions). Their progress toward that new goal will generate a meaningful reduction in emissions, although we recognize other types of emissions. Reductions are needed over time across the broader value chains in our industries to meet the Paris Agreement's goals.	Over the long term, to achieve the levels of decarbonization that the industries they serve will need to align with the goals of the Paris Agreement, they anticipate that additional breakthroughs and advances will be needed to develop deep decarbonization solutions that are widely available, scalable, and affordable. These include solutions such as the use of hydrogen, carbon capture, and small modular nuclear reactors for power generation; electric flight and hydrogen-based commercial aviation; direct air capture; and other technologies.				
Real Estate	2/10/2021	2021	Active Super Australia	Aims to take our fight for the environment even further by advocating for all building stock to be net-zero by 2050. Expects the companies that they invest in to take progressive climate action as well so that they produce net-zero carbon emissions across the board, even through their investment portfolio.	Other than the pledge, little has been written about the strategies to make net-zero happen	Active Super Pledge	WGHG Active Super		
Real Estate	5/4/2021	2021	AMP Capital	AMP Capital has signed a seven-year renewable Power Purchase Agreement (PPA) with Diamond Energy. This agreement means AMP Capital's Wholesale Office Fund (AWOF) has achieved Zero Net Carbon for its internally managed assets from 1 January 2021 – well ahead of its 2030 target. The renewable energy procurement strategy is one of a number of initiatives towards achieving Zero Net Carbon across AMP Capital's entire \$28 billion of managed real estate portfolios by 2030. All funds and assets will be net zero carbon by 2030 through phasing out fossil fuels, running on 100% renewable energy and making buildings highly efficient and resilient. Disclosure of Scope 1 and 2 energy consumption and emissions will occur using internationally recognised reporting protocols.	A technological breakthrough – possibly carbon capture and storage, clean nuclear or transmission grids that are able to run fully on renewables – could also contribute to further reduction in carbon intensity for AMP Capital.	AMP Capital Managed Portfolio Pledge. Mention of external CDK	AMP Capital Pledge Announcement		
Real Estate	4/20/2021	2021	Antilooppi	Last year the company signed the Net Zero Carbon Buildings Commitment for the global real estate sector and committed to achieving carbon neutrality for its own energy procurement by 2030.	Other than the pledge, little has been written about the strategies to make net-zero happen	Antilooppi Pledge	WGHG Antilooppi Coverage		
Real Estate	10/5/2020	2020	Argent Services LLP	Commits to all occupied assets operating at net zero carbon by 2030. Argent Services measures and discloses carbon emissions from energy use and discloses publicly via UK Standard Energy and Carbon Reporting (SECR) requirements. Argent Services outlines a decarbonisation roadmap that includes assets being supplied by zero carbon gas and electricity, supported by an energy efficiency programme led by a Smart BMS. Argent Services verifies carbon emissions via the SECR reporting process that will be undertaken by an independent third party. Argent Services continues to advocate for industry transformation through supporting the UKGBC and demonstrating best practice through delivering only zero carbon projects by 2030.	Other than the pledge, little has been written about the strategies to make net-zero happen	Argent Services Pledge on WGHG	Argent Services Press Release		
Real Estate	6/6/2020	2020	Arthaland Corporation	Arthaland commits to design, own and operate new and existing commercial developments at net zero carbon by 2030, with residential developments net-zero ready. Arthaland discloses project and operational energy demand, and scope 1 and 2 carbon emissions for all designed, occupied and operated assets via annual reports. Arthaland develops and implements energy demand and carbon emissions reduction strategies, and renewable energy procurement at asset and portfolio level. Arthaland ensures residential developments are net zero carbon ready with a transition plan for future grid decarbonisation.	Other than the pledge, little has been written about the strategies to make net-zero happen	Arthaland Pledge	BHC Coverage on Arthaland Pledge		
Real Estate	6/10/2021	2021	Assura	Assura pledges to advance their development process so that by 2025, Assura will be treating only buildings with a net zero carbon rating for construction and operation. Assura discloses asset level energy consumption and operating scope 1 & 2 carbon emissions. These will be included as performance metrics in the annual report and shared with relevant tenants. Assura will develop, maintain and update an implementation plan for achieving Commitment requirements in line with WorldGBC's 'Advancing Net Zero' project including energy efficiency measures, on-site and off-site renewable generation. Energy procurement for the current portfolio will be net zero by 2026, with all new developments operating at net zero carbon by 2030. Assura will report, disclose and verify annually the progress of each asset and the portfolio towards achieving the outcomes through locally relevant third-party 576 buildings, 569,482 m2 total floor area, 72 employees certification, third-party assurance or market mechanisms. Assura will advocate, as the leading Healthcare REIT in the UK, on the benefits of operating a net zero carbon portfolio to tenants, supply chain and building users.	Other than the pledge, little has been written about the strategies to make net-zero happen	Assura Pledge	Assura Net Zero Carbon Strategy Coverage		
Real Meat, Pork, Poultry & Dairy		2018	Crave Brothers Farmland Cheese	Crave Brothers Farm is producing more electricity than their operations – operating in a carbon-negative way – and they're doing it by cutting down on waste.	Our computer controlled anaerobic digestion system generates enough electricity to power our farm, cheese factory, and 300 area homes. It is owned by Clean Fuel Crave. Anaerobic (oxygen-free) digestion is a biological process in which microorganisms break down organic waste in a process that ultimately produces gas, mainly methane with some carbon dioxide. This gas can be burned just like natural gas, thus generating energy. The digester helps manage our farm's manure; it provides clean, renewable energy for the farm, and produces excess electricity, which Clean Horizons sells on the grid. The digester reduces odor from the manure and also provides some saleable products. We use the liquid byproducts as fertilizer on our fields and the solid byproducts (dry organic matter) are used as animal bedding and in a line of organic potting soil.	Crave Brothers Farm Pledge			
Real Meat, Pork, Poultry & Dairy	06/09/21	2021	Tyson	To achieve net-zero greenhouse gas (GHG) emissions across its global operations and supply chain by 2050, including scopes 1, 2 and 3.	Completing initial land stewardship target of engaging 2 MILLION FEED ACRE and expanding the total acres by 2025, including a total target of 100% of feed purchased by 2030. **Land stewardship is not clearly defined	Tyson Pledge	Reuters		
Real Meat, Pork, Poultry & Dairy	03/23/21	2021	JHS Foods	JHS has made a commitment to achieve net-zero greenhouse gas (GHG) emissions by 2040. The commitment spans the company's global operations, including Pilgrim's Pride Corporation (Nasdaq: PPK), as well as its diverse value chain of agricultural producer partners, suppliers and customers in their efforts to reduce emissions across the value chain.	Eliminating deforestation. JHS will eliminate illegal Amazon deforestation from its supply chain – including the suppliers of its suppliers – by 2025, and in other Brazilian biomes by 2030. The company will achieve zero deforestation across its global supply chain by 2035. Fostering innovation. JHS will invest \$100 million by 2030 in research and development projects to assist producer efforts to strengthen and scale regenerative farming practices, including carbon sequestration and on-farm emission mitigation technologies. This investment will contribute to reducing scope 3 emissions across the value chain, in our efforts toward net zero.	JHS Pledge			
Retail	09/14	2021	Procter & Gumble	The company plans to achieve net zero greenhouse gas emissions across its operations and supply chain by 2040. P&G has been working to slash Scope 1 (direct emissions from its factories and offices) and Scope 2 (emissions from the purchase of energy for P&G facilities). P&G plans to work towards Scope 3, but it is more challenging.	P&G will explore ingredients made from captured CO2. Our Tide brand is working with Twelve, a Silicon Valley start-up, to explore their carbon capture technology to incorporate CO2 from emissions into ingredients that could be used across Tide. P&G emphasized that it has committed to "no deforestation in our supply chain" and said all of the wood pulp used in its toilet paper, tissue, towel and absorbent hygiene products is 100% third-party sustainably certified by forestry management standards. "These standards help ensure that for every tree harvested, at least one is re-planted."				
Retail	06/29	2021	Giant Eagle	A commitment to achieve net zero carbon emissions by 2040, with an initial target of 50 percent carbon dioxide reduction by 2030.	Investments into negative emissions technologies which include carbon capture, soil sequestration and reforestation.	Giant Eagle Pledge			
Retail	06/15	2021	Ralph Lauren	Net zero global greenhouse gas (GHG) emissions from its operations and its value chain by 2040.	For emissions that cannot be reduced through Ralph Lauren's direct actions and collective initiatives, the Company will purchase high-quality, verifiable carbon removals equivalent to its residual GHG emissions by 2040. To that end, beginning in fiscal 2022, Ralph Lauren will commit to carbon removal projects in partnership with Indigo Ag, an ag-tech company dedicated to improving the profitability, sustainability and social responsibility of the agriculture system. Through the Indigo Carbon program, Indigo Ag supports farmers in adopting new beneficial farming practices, measures and validates the resulting carbon sequestration and emissions abatement, and allows companies to directly support farmers' transition through the purchase of verified agricultural carbon credits.	Ralph Lauren Pledge			

Tech	09/22/21	2021	Expensify	Expensify commits to becoming Net Zero by 2030 by adjusting their Climate Program to focus on carbon removal.	To meaningfully offset its carbon footprint, Expensify is supporting Brazil's Nat Concessions, which creates reforestation and protects biodiversity on 500,000 acres in the Peruvian Amazon. The future Climate Program plans include coming up with a meaningful carbon reduction plan, additional carbon offsets, and removal to cover supply chain emissions. They commit to becoming Net Zero by 2030 by adjusting their Climate	Expensify's Pledge			
Tech	09/02/21	2021	Logitech	Logitech have accelerated their Climate Action Strategy to become Carbon Neutral (scope 1, 2, and 3) in 2021 and adopt a Climate Positive Approach to deliver Net Zero by 2030 and Climate Positive thereafter.	Becoming carbon neutral this year is a first step towards their much bigger goal of becoming climate positive. To help them remove more carbon than they emit, they are restoring natural environments and climate-impacted communities with our investments in forestry conservation and livelihood projects, as well as projects that shift the grid to renewables. Going further still, they are also investing in carbon capture projects to	Logitech Pledge			
Tech	04/22/21	2021	Algorand	Algorand Network commits to being Carbon Neutral. In fact, we're going Carbon Negative!	"Through our carbon offset plan with ClimateTrade, we are committing to always being ahead of the offset requirement of our growing network and will take more carbon out of the air than created by our energy footprint." ***The Method of Carbon Removal through offsets is not publicly available information through ClimateTrade	Algorand Pledge			
Tech	2021	2021	LinkedIn	LinkedIn seeks to be carbon-neutral by 2030 and account for all of its historical emissions through carbon removal by 2050 (in line with its parent company, Microsoft).	LinkedIn tracks the carbon emissions from their global operations, including offices, data centers, employee air travel, and commuting, and report with Microsoft through the Carbon Disclosure Project. They have implemented an internal carbon fee, and are raising the fee to cover Scope 3 emissions. They invest in high quality carbon offsets for the emissions that they do produce, funding critical work in reforestation, REDD+, forest preservation, and	LinkedIn Pledge			
Tech	11/20/20	2020	GlaxoSmithKline	Net zero emissions across all operations by 2030	The company is turning to responsible and high-quality carbon removal solutions. They are committed to their role in the transition to a net zero carbon economy and GSK will aim to use removals for less than 20% of their footprint. As they continue to decarbonize their operations and supply chain, they will be partnering with organizations with expertise in carbon removal solutions who will help them shape and deliver their approach.	GSK Pledge			
Tech	9/1/20	2020	Facebook	Facebook is committed to helping solve the climate crisis and is aligning our program with the latest science on what is necessary to transition to a zero carbon future. We will be helping to scale existing technology and the development of new solutions that will reduce emissions and offset. In order to have Negative Emissions , Stripe committed to pay, at an available price, for the direct removal of carbon dioxide from the atmosphere and its sequestration in secure, long-term storage. Stripe announced the Negative Emissions Commitment, pledging at least \$1M per year to pay, at any price, for the direct removal of carbon dioxide from the atmosphere and its sequestration in secure long-term storage.	Facebook's approach to carbon removal builds on carbon credit purchases of more than 100,000 metric tons in 2019 from projects such as forest conservation. Moving forward, they will support carbon removal projects, starting with nature-based solutions.	Facebook Pledge	Full net-zero commitment		
Tech	8/15/19	8/15/19	Stripe	Stripe committed to pay, at an available price, for the direct removal of carbon dioxide from the atmosphere and its sequestration in secure, long-term storage. Stripe announced the Negative Emissions Commitment, pledging at least \$1M per year to pay, at any price, for the direct removal of carbon dioxide from the atmosphere and its sequestration in secure long-term storage.	Fund reforestation initiatives, soil management reform, enhanced weathering, and direct air capture. In May 2020, Stripe announced their first four purchases: Climeworks, Project Vesta, CarbonCure, and Churn Industrial	Stripe Pledge Stripe's First NETL Purchases			
Tech	7/21/20	2020	Apple	Commits to be 100% carbon neutral for its supply chain and products by 2030. Is already carbon neutral for operations. Apple details its plans to reduce emissions by 75 percent by 2030 while developing innovative carbon removal solutions for the remaining 25 percent of its comprehensive footprint.	Natural solutions. "Carbon removal: Apple is investing in forests and other nature-based solutions around the world to remove carbon from the atmosphere. Apple is announcing today a first-of-its-kind carbon solutions fund to invest in the restoration and protection of forests and natural ecosystems globally. In partnership with Conservation International, the company will invest in new projects, building on learnings from existing work like restoring degraded savannas in Kenya and a vital mangrove ecosystem in Colombia. Mangroves not only protect the coasts and help support the livelihoods of these communities where they grow, but they also can store up to 10 times more carbon than forests on land. Through its work with The Conservation Fund, the World Wildlife Fund, and Conservation International, the company has protected and improved the management of over 1 million acres of forests and natural climate solutions in China, the US, Colombia, and Kenya."	Apple Pledge			
Tech	1/16/20	2020	Microsoft	Microsoft has pledged to be carbon negative by 2030. By 2050 Microsoft will remove from the environment all the carbon the company has emitted either directly or by electrical consumption since it was founded in 1975.	Reforestation, soil carbon sequestration, the new carbon capture technologies and	Microsoft Pledge			
Tech	9/23/19	2019	Intuit	Using its 2018 carbon footprint metric as a baseline, Intuit committed to reducing carbon emissions by 50 times greater than its current carbon footprint, making them carbon negative by 2030.	Through a partnership with Project Drawdown's Drawdown Labs	Intuit Pledge			
Tech	9/23/19	2019	Adidasian	As part of their commitment to combat climate change, Adidasian will run their operations on 100 percent renewable energy by 2025. They also set science-based targets to limit warming to 1.5°C and achieve net-zero emissions by no later than 2050.	Company states that going accomplishing net-zero requires decarbonization of the business rather than simply offsetting their emissions	Adidasian Pledge			
Tech	9/12/19	2019	Shopify	In addition to being carbon neutral, Shopify has started the Shopify Sustainability Fund which will boost all environmental investments, including carbon sequestration. Through this, they commit to spending at least \$5 million USD annually to fight for the environment.	Shopify is committed to investing at least \$1 million USD each year into carbon sequestration.	Shopify Pledge			
Tech	10/1/18	2018	B/E Group	BT Group is committed to being a net-zero carbon emissions business by 2045.	While they have committed to being a net-zero business by 2045, the executives they plan to use to do so are not outlined.	B/E Pledge			
Tech	4/17/17	2017	Salesforce	Committed to being net-zero in 2017. Is now a net-zero company.	Through offsets and reforestation. "The carbon offset projects we have chosen create both economic opportunity and positive environmental impact to make a difference in the future of our planet and communities around the world."	Salesforce Pledge			
Tech	09/21/20	2020	Google	Google has been carbon neutral since 2007, but is striving to be absolutely carbon free by 2030 .	Google purchases offsets and has a series of reforestation partnerships to account for its carbon emissions. It also operates complexly off renewable energy, and seeks to help 500 cities begin removing 1.1 gigan of carbon annually starting in 2020.	Google Pledge			
Tech	04/12/21	2021	Wipac LTD	The energy industry is focused in three avenues for achieving net zero one of which being Recycle and store carbon dioxide produced during power generation or industrial processes by using it in products, storing or reinjecting (CCS).	One of the practical ways to achieve net zero emissions is to adopt technologies that remove carbon by sequestering carbon into non-combustible products like plastics or by capturing and injecting carbon into the reservoirs with CCUS or using carbon dioxide for EOR methods.	Wipac LTD Pledge	Business Insider		
Tobacco		2020	Philip Morris International	Achievement of carbon neutrality for PMI's direct operations by 2030. Achievement of carbon neutrality for PMI's value chain by 2050.	Philip Morris cites "reforestation" and "soil carbon enhancement" as it's two main methods of CDR. They are more focused on reducing the emissions in their operations than using CDR to become carbon neutral. According to their website, "Our aim is to compensate unavoidable emissions via credits generated through in-setting projects, including nature-based solutions and other carbon removal technologies. Based on our new carbon buy, we are setting up a portfolio of climate investments (resulting in carbon credits generation or acquisition) for carbon compensation."	PMI Pledge			11

