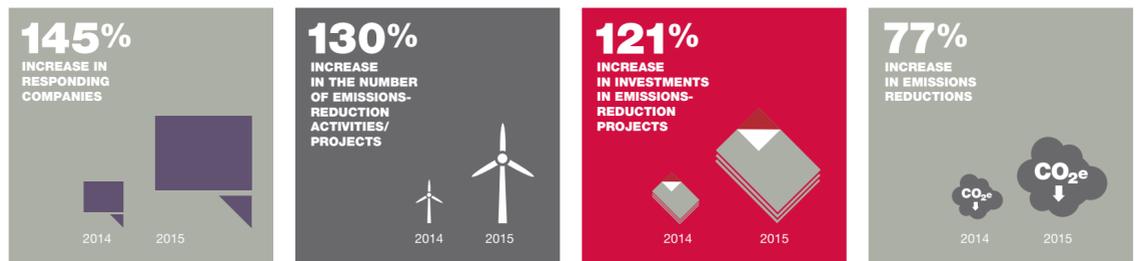


CARBON ACTION WHICH SECTORS ARE AHEAD OF THE CURVE?

Carbon Action is an investor-led initiative to accelerate company action on carbon reduction and energy efficiency activities which deliver a positive return on investment. 304 investors with US\$22 trillion in assets under management ask the world's highest-emitting publicly-listed companies to take three specific actions in response to climate change:

- ▶ Make emissions reductions (year-on-year); with targets publicly disclosed; and
- ▶ ROI-positive investments in emissions-reduction projects



	CONSUMER DISCRETIONARY	CONSUMER STAPLES	ENERGY	INDUSTRIALS	MATERIALS	UTILITIES	TOTAL
RESPONSE RATE OF TARGETED ORGANIZATIONS	38 RESPONDERS OF 51 TARGETED	60 RESPONDERS OF 79 TARGETED	99 RESPONDERS OF 331 TARGETED	96 RESPONDERS OF 172 TARGETED	155 RESPONDERS OF 373 TARGETED	104 RESPONDERS OF 302 TARGETED	552 RESPONDERS OF 1308 TARGETED
HOW MANY COMPANIES HAVE SET EMISSIONS-REDUCTION TARGETS?	35 92% OF RESPONDERS	54 90% OF RESPONDERS	56 57% OF RESPONDERS	87 91% OF RESPONDERS	124 80% OF RESPONDERS	68 65% OF RESPONDERS	424 77% OF RESPONDERS
ABSOLUTE TARGETS AN ABSOLUTE TARGET IS ONE THAT DESCRIBES A REDUCTION IN ACTUAL EMISSIONS IN A FUTURE YEAR WHEN COMPARED TO A BASE YEAR	34 TARGETS SET	41 TARGETS SET	48 TARGETS SET	84 TARGETS SET	91 TARGETS SET	107 TARGETS SET	405 TARGETS SET
EMISSIONS THE VOLUME OF CARBON DIOXIDE EMISSIONS PRODUCED IN ONE YEAR, MEASURED IN METRIC TONNES	82,617,465	148,454,672	1,168,200,267	556,609,468	1,911,552,662	2,236,934,316	6,104,368,850
EMISSIONS-REDUCTION ACTIVITIES COMPANY IMPLEMENTED PROJECTS AND STRATEGIES TO REDUCE EMISSIONS	156 PROJECTS	375 PROJECTS	339 PROJECTS	675 PROJECTS	517 PROJECTS	389 PROJECTS	2,433 PROJECTS
TOTAL EMISSIONS OFFSET (TONNES CO2e)	8,177,199	6,714,502	334,236,747	25,131,250	138,349,518	128,193,299	640,802,515
MEDIAN EMISSIONS REDUCTION (TONNES CO2e) PER PROJECT	3,770	2,070	12,572	500	3,702	10,397	
TOTAL INVESTMENTS (USD)	26	1.2	4.2	9.4	10.2	35	86
MEDIAN INVESTMENT (THUSD) PER PROJECT	433	493	515	82	430	5,625	
EMISSIONS-REDUCTION PROJECTS - TOTAL TONNES OF CO2 EQUIVALENT	19,368	5,151	3,168,564	9,926	15,274	229,475	284,646
EMISSIONS-REDUCTION PROJECTS - PER PROJECT TONNES OF CO2 EQUIVALENT	123.5	13.7	9,494.3	14.7	29.4	589.6	117.4
BEHAVIORAL CHANGE	271,146 (3%)	82,417 (1%)	25,348,515 (8%)	377,183 (2%)	183,286 (0%)	5,048,458 (4%)	31,311,005 (5%)
ENERGY EFFICIENCY: BUILDING FABRIC	17,303 (0%)	678,406 (10%)	478 (0%)	56,804 (0%)	652,789 (0%)	412,543 (0%)	1,818,323 (0%)
ENERGY EFFICIENCY: BUILDING SERVICES	358,482 (4%)	631,329 (9%)	2,747 (0%)	406,097 (2%)	61,728 (0%)	33,496 (0%)	1,493,877 (0%)
ENERGY EFFICIENCY: PROCESSES	836,932 (10%)	917,879 (14%)	96,901,706 (29%)	2,492,536 (10%)	107,687,510 (78%)	8,986,191 (7%)	217,822,754 (34%)
FUGITIVE EMISSIONS REDUCTIONS	1,620 (0%)	339,868 (5%)	2,306,906 (1%)	0 (0%)	101,578 (0%)	2,371,217 (2%)	5,121,189 (1%)
LOW CARBON ENERGY INSTALLATION	105,815 (1%)	609,526 (9%)	4,556,425 (1%)	108,867 (0%)	2,619,855 (2%)	52,909,283 (41%)	60,909,771 (10%)
LOW CARBON ENERGY PURCHASE	45,023 (1%)	1,365,551 (20%)	170,273 (0%)	221,808 (1%)	355,639 (0%)	12,055,047 (9%)	14,213,341 (2%)
OTHER	42,189 (1%)	330,604 (5%)	186,178,944 (56%)	479,390 (2%)	1,514,821 (1%)	12,131,889 (9%)	200,677,637 (31%)
PROCESS EMISSIONS REDUCTIONS	187,454 (2%)	1,021,602 (15%)	17,141,051 (5%)	516,275 (2%)	7,547,285 (5%)	33,983,452 (27%)	60,397,119 (9%)
PRODUCT DESIGN	6,158,469 (75%)	448,638 (7%)	1,500,000 (0%)	15,458,007 (62%)	17,386,158 (13%)	96,833 (0%)	41,050,105 (6%)
TRANSPORTATION: FLEET	1,472 (0%)	221,808 (3%)	120,362 (0%)	4,591,819 (18%)	148,486 (0%)	77,797 (0%)	5,161,744 (1%)
TRANSPORTATION: USE	151,294 (2%)	66,874 (1%)	9,340 (0%)	422,464 (2%)	88,585 (0%)	87,093 (0%)	825,650 (0%)
LARGEST RESPONDERS WITH NO EMISSIONS-REDUCTION TARGET BY MARKET CAPITALIZATION - ONLY COMPANIES THAT RESPONDED PUBLICLY TO CDP ARE INCLUDED	Magna International	Ambev Costco JBS Kernel Holding	Exxon Mobil BP Occidental Petroleum EOG Resources Anadarko Petroleum Petrobras Imperial Oil Woodside Petroleum Apache Noble Energy	Safran American Airlines West Japan Railway TNT Express	Syngenta Corning Freemont-McMoRan Newmont Fresnillo Antofagasta Newcrest Ashland Empresas CMPC Valspar	Exelon Wisconsin Energy Alliant Energy Brookfield Infrastructure Aboitiz Power NiSource OGE Energy Colburn AES GENER Empresa Electrica Penuche	
LARGEST RESPONDERS WITH NO EMISSIONS-REDUCTION PROJECT BY MARKET CAPITALIZATION - ONLY COMPANIES THAT RESPONDED PUBLICLY TO CDP ARE INCLUDED	Astra International	Ambev	Enbridge Energy Partners Tonen General Sekiyu K.K. Energen ERG Cairn Energy DNO International SOCO International Premier Oil Bonavista Energy New Zealand Oil & Gas	Yamato Holdings WestJet Airlines	Newcrest Mining Valspar Silver Wheaton Corp. NMDC Methanex PT Vale Indonesia AMG Advanced Metallurgical Aspire Mining	Wisconsin Energy Brookfield Infrastructure AES GENER Empresa Electrica Penuche Chilectra Lechwerke Edgell Ormat Technologies Algonquin Power & Utilities Empresa Electrica del Norte Grande	
TOP 10 NON-RESPONDERS* BY MARKET CAPITALIZATION	Saic Motor Fuji Heavy Industries Kia Norwegian Cruise Line Sumitomo Harley-Davidson Lear Mitsubishi Motors Huayu Automotive Systems Daihatsu Motor FAW Car	Kweichow Moutai Alimentation Couche-Tard Tyson Foods Hengan Intl Group Kimberly-Clark de México Ingredion Inc Kuala Lumpur Kepong Anadolu Efes China Resources Beijing Dabeinong Technology	Kinder Morgan Enterprise Products Partners Reliance Industries Phillips 66 Rosneft Oil & Natural Gas Coal India Valero Energy Williams Companies Marathon Petroleum	CSR General Dynamics Caterpillar Jardine Matheson Chell Industries Air China Bolloré China Eastern Airlines China Southern Airlines ANA Holdings	LyondellBasell Industries Norilsk Nickel Southern Copper Grupo Mexico Nan Ya Plastics Siam Cement Formosa Plastics Anhui Conch Cement Dangote Cement Formosa Chemicals & Fibre	NextEra Energy Dominion Resources The Southern Company Hong Kong & China Gas Co Cheung Kong Infrastructure Assets Holdings Power PPL Public Service Enterprise Edison International Huaneng Power International	

* Volkswagen responded to CDP but then withdrew their response in 2015

Scope 1 emissions
All direct CO2 emissions.

Scope 2 emissions
Indirect CO2 emissions that arise as a result of an organisation's activities for example, emissions electricity, heat, cooling or steam purchased for its own consumption.

Scope 3 emissions
Other indirect emissions of CO2 from sources that are not owned or controlled by a company but which occur as a result of its activities. For example the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities not covered in Scope 2, outsourced activities and waste disposal.

Emissions-reduction activities could include:
Energy efficiency (building fabric), Energy efficiency (building services), Energy efficiency (processes), Fugitive emissions reduction, Low-carbon energy purchase, Low-carbon energy installation, Process emissions reductions, Transportation (Fleet) or Transportation (Use).

For more information please contact: investor@cdp.net
As an investor signatory you can access the full Carbon Action dataset through [CDP's portal](#)