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Science-based Greenhouse Gas (GHG) Emissions Targets

Final Report on a Collaborative Engagement Initiative

February 2019

Aaron Ziulkowski, CFA

Manager, ESG Integration at Walden Asset Management

aziulkowski@bostontrust.com

www.waldenassetmgmt.com

Christina Herman

Program Director, Climate Change at ICCR

cherman@iccr.org

www.iccr.org

Science-based targets engagement summary

Background

In December 2016, ICCR members wrote to all 106 US-based companies that reported to CDP that they may set a science-based greenhouse gas (GHG) emissions reduction target within the next two years. In December 2017, we provided a 1-year status report (See Appendix). We provide a final, two-year update and summarize important contextual changes.

Contextual Changes

- **Science:** Evolving scientific understanding of climate change has shortened the timeline for emissions targets that may help achieve desired climate outcomes. The Intergovernmental Panel on Climate Change (IPCC) released a special report, "[Global Warming of 1.5°C](#)," analyzing the reduced risks and necessary emissions reductions associated with limiting warming to 1.5°C compared to the previous 2°C goal. GHG emissions need to be reduced 45% from 2010 levels by 2030 and reach net zero by midcentury to have a likely chance to meet a 1.5°C target. The previous target entailed a 55% reduction by 2050 and net zero emissions sometime in the second half of the century.
- **Technology:** The price of renewable energy continues to drop. Analysis from Lazard indicates utility-scale solar, and wind-powered electricity generation is cost competitive on an unsubsidized basis with coal and natural gas combined cycle power generation.
- **Public Policy:** President Trump announced his intent to withdraw the US from the Paris Climate Agreement. The US cannot complete the withdrawal process until November 4, 2020, the day after the next US presidential election. At an annual climate conference in late 2018, nearly 200 countries, including the US, established rules to implement the Paris Climate Agreement.
- **Financial Markets:** The Task Force on Climate-related Financial Disclosures (TCFD) published its recommendations. Companies are encouraged to improve disclosure pertaining to governance, strategy, risk management, and metrics and targets.

Two-year progress report

Companies are taking meaningful action to mitigate and respond to climate change

- Nearly half of the companies engaged as part of the initiative have set SBTs. See Slides 5 and 6 for details of company emission reduction targets.
- One quarter of the companies with SBTs have received validation of their targets from the SBTI, a clear sign of climate leadership.
- 39 companies indicate that they still intend to set an SBT, 33 of these companies have goals that expire in 2020 or have recently expired. 18 companies indicate that they plan to seek validation of their targets from SBTI.
- One year into the engagement initiative, 12 companies appeared to have abandoned plans to set an SBT. Over the second year, however, 8 of those companies appear to have reconsidered and now report efforts underway to establish an SBT. During the second year of the project, several additional companies appear to have abandoned plans to set an SBT. See Slide 8 for details.

Table 1: Company Engagement Results at a Glance

105	received letter
49	established an SBT*
12	received “SBTI” approval**
39	still plan to set an SBT
8	appear to no longer plan to set an SBT
8	merged or were acquired

*Numerous targets not yet approved by the SBTI have been identified as “science-based.” Targets that appear to result in emissions reduction that aligns with milestones identified by the IPCC were counted as science-based.

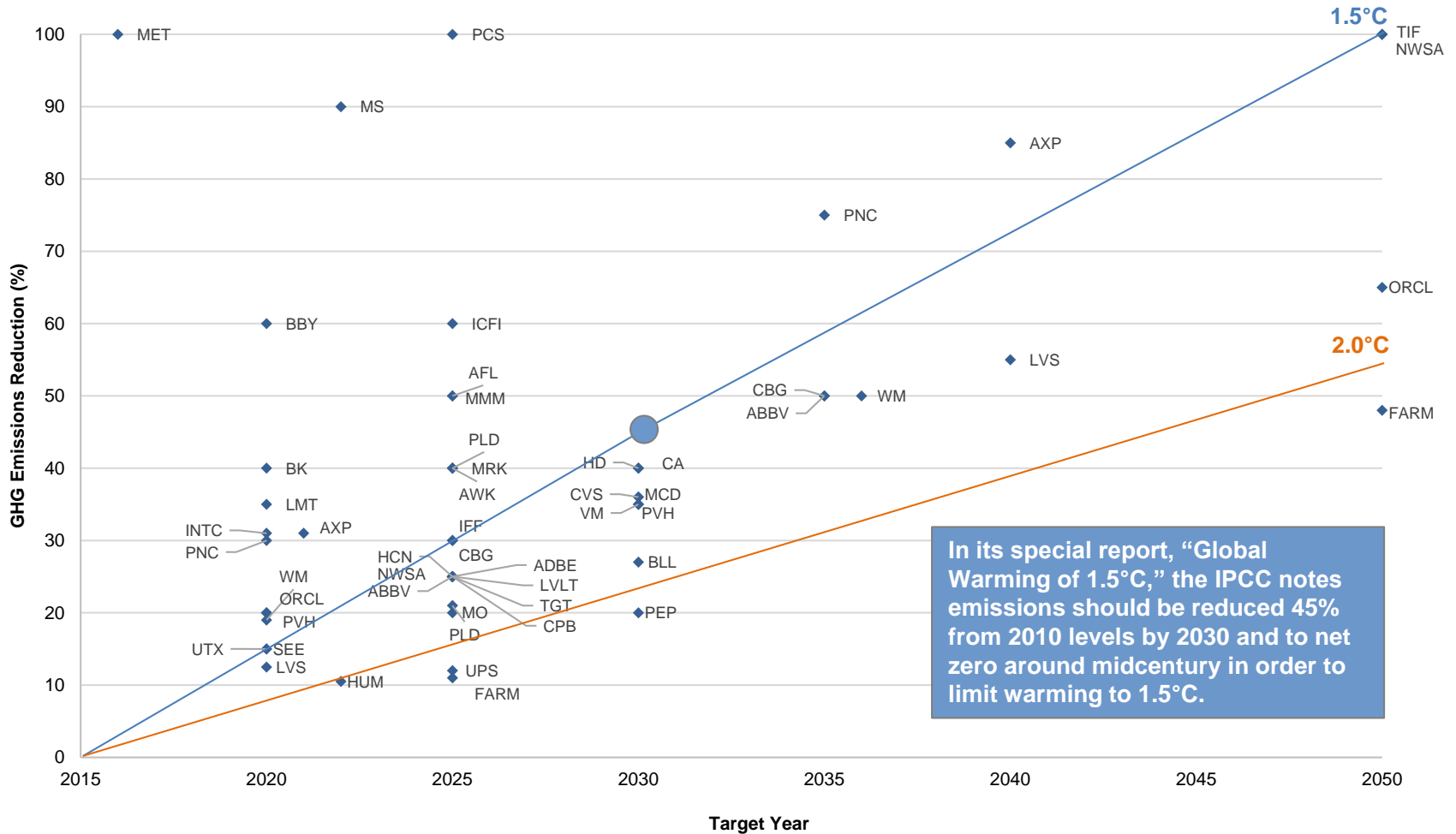
**SBTI refers to the Science-based Targets Initiative, a joint initiative by CDP, the UN Global Compact, World Resources Institute, and WWF. See [here](#) for more information.

According to the Science-based Targets Initiative, as of January 2019, 516 global companies (100 US-based) have committed to set SBTs and 164 have done so.

More details: 106 companies were identified as part of the initial engagement list but we received confirmation that one letter was never delivered. Seven companies experienced some sort of corporate action during 2016-2018: Keurig Green Mountain was taken private by JAB Holding and then merged with Dr Pepper Snapple Group to form a new publicly-traded company, Keurig Dr. Pepper; Linear Technology was acquired by Analog Devices; Mead Johnson Nutrition was acquired by Reckitt Benckiser; Reynolds American was acquired by British American Tobacco; Sanyo Denki America was delisted; The Dow Chemical Company merged with E.I. du Pont de Nemours & Company; and Yahoo! was acquired by Verizon.

Corporate targets compared to 1.5°C scenario model

As the stringency of reduction targets increases, fewer companies appear on track.



In its special report, "Global Warming of 1.5°C," the IPCC notes emissions should be reduced 45% from 2010 levels by 2030 and to net zero around midcentury in order to limit warming to 1.5°C.

Note: Goals above do not all have the same baseline year.

Company GHG reduction goals

Company	Ticker	Baseline Year	Baseline Year Emissions	Target Year	Targeted Emissions Reduction (%)
3M	MMM	2002	18,300,000	2025	50
Abbvie	ABBV	2015	665,467	2025	25
Abbvie	ABBV	2015	665,467	2035	50
Adobe	ADBE	2015	64,736	2025	25
Aflac	AFL	2007	29,765	2025	50
Altria	MO	2011	549,075	2025	20
American Express	AXP	2011	157,365	2021	31
American Express	AXP	2011	157,365	2040	85
American Water Works	AWK	2007	853,676	2025	40
Anthem*	ANTM	2013	151,682	2020	30*
Ball	BLL	2017	1,410,117	2030	27
Best Buy	BBY	2009	1,031,706	2020	60
BNY Mellon*	BK	2008	144,599	2020	40*
Boeing	BA	2017	1,180,000	2025	25
CA Technologies	CA	2015	61,214	2030	40
Campbell Soup	CPB	2015	735,556	2025	25
CBRE	CBG	2015	33,949	2025	30
CBRE	CBG	2015	33,949	2035	50
CVS Health	CVS	2010	1,766,531	2030	36
Exelon*	EXC	2015	1,100,000	2022	15*
Farmer Brothers	FARM	2014	48,213	2025	11
Farmer Brothers	FARM	2014	48,213	2050	48
Hanesbrands*	HBI	2007		2020	40*
Hilton Worldwide*	HLT	2008		2030	61*
Humana	HUM	2017	74,223	2022	10.5
ICF International	ICFI	2013	8,134	2025	60
Intel	INTC	2012	1,275,000	2020	31
International Flavors & Fragrances	IFF	2015	246,761	2025	30
Las Vegas Sands	LVS	2015	1,037,811	2020	12.5
Las Vegas Sands	LVS	2015	1,037,811	2040	55
Level 3 Communications	LVLT	2014	689,553	2025	25
Lockheed Martin	LMT	2010	1,289,470	2020	35
McDonald's	MCD	2015	12,100,000	2030	36
Merck	MRK	2015	1,501,000	2025	40
MetLife	MET	2012	177,328	2016	10
MetLife	MET	2012	177,328	2016	100
Morgan Stanley	MS	2012	357,990	2022	90

Continues on next page →

Company GHG reduction goals (continued)

Company	Ticker	Baseline Year	Baseline Year Emissions	Target Year	Targeted Emissions Reduction (%)
News Corp	NWSA	2014	248,702	2025	25
News Corp	NWSA	2017	202,015	2050	100
Oracle	ORCL	2015	370,414	2020	20
Oracle	ORCL	2015	370,414	2050	65
PepsiCo	PEP	2015	5,751,705	2030	20
Pinnacle West Capital Corporation (APS)*	PNW	2005	16,544,064	2032	52*
PNC	PNC	2009	480,206	2020	30
PNC	PNC	2009	480,206	2035	75
Prologis	PLD	2016		2025	21
Prologis	PLD	2016		2040	40
PVH	PVH	2015	134,459	2030	35
PVH	PVH	2015	134,459	2030	35
Royal Caribbean Cruises*	RCL	2005	3,774,175	2020	35*
Sealed Air	SEE	2012	674,239	2020	15
Target	TGT	2015	2,982,884	2025	25
The Home Depot	HD	2011	3,020,011	2030	40
Tiffany	TIF	2013	43,306	2050	100
T-Mobile	TMUS	2012	981,710	2025	95
United Technologies	UTX	2015	2,036,941	2020	15
UPS	UPS	2015	5,636,000	2025	12
VF Corp*	VFC	n/a	n/a	2025	100*
Vmware	VMW	2016	31,200	2030	35
Waste Management	WM	2011	13,006,771	2020	19
Waste Management	WM	2011	13,006,771	2036	50
Welltower	HCN	2014	131,986	2025	25

Notes

Anthem's target is a 30% reduction in Scope 1 and 2 GHG emissions intensity per square foot of real estate.

BNY Mellon has also made a commitment to carbon neutrality.

Hilton Worldwide set an intensity-based target that was approved by SBTi: Reduce metric tons of CO₂e per square meter by 61% by 2030 from a 2008 baseline.

Exelon also has a generation emissions intensity target that is below the industry's 2 degree target for 2050.

Hanesbrands' goal is an intensity-based goal.

Pinnacle West Capital Corp (parent company of APS) target is an intensity-based target normalized by MWh.

Royal Caribbean Cruises target is to reduce greenhouse gas footprint by 35% per ALBDO*km by 2020 (target year), as compared to 2005 levels (base year). ALBDO refers to the number of lower berths (double occupancy) on a ship times the number of days that those berths are available to passengers per year times distance sailed.

VF Corporation has set a 100% renewable energy target (2025) and is currently working on establishing a GHG emissions reduction target.

Companies planning to set science-based emission reduction targets

Allergan

Alliance Data Systems

Allstate

Analog Devices

AvalonBay Communities

Becton, Dickinson and Co.

Berry Plastics

Bristol-Myers Squibb

CenturyLink

Coach

Eaton

Ecova

FedEx

First Solar

Flextronics International

General Motors

HCP

Jones Lang Lasalle

Johnson Controls

Juniper Networks

Keurig Dr. Pepper

Kimco Realty

Lennox International

Macerich

Marriott International

Motorola Solutions

Northern Trust

Prudential Financial

Republic Services

Sempra Energy

Sherwin-Williams

Steelcase

Total System Services (TSYS)

Union Pacific

Varian Medical Systems

WestRock

Weyerhaeuser

Yum! Brands

Based on 2018 disclosure

Source: Company disclosure and Company CDP climate change survey responses

At the end of the first year of the project, some companies had indicated that they no longer intended to set an SBT. By the end of the second year, some of the companies had reconsidered, while others decided not to set an SBT.

Company	2017 Status	2018 Status
Coach (Tapestry)	Appears to no longer plan to set an SBT. Rationale not disclosed.	Company now indicates intent to set an SBT within coming two years.
Eversource Energy	Appears to no longer plan to set an SBT. Rationale not disclosed.	No change. Not disclosed.
First Solar	Business transition. Company notes it “remain(s) committed to evaluating and striving towards science-based targets.”	Company now plans to set an SBT within coming two years.
Hanesbrands	Stated that there was “no established science-based targets methodology in this sector.”	Still indicates it does not plan to set an SBT but notes a methodology is currently being developed. The company has done some benchmarking and believes its target is ‘aligned with the intent of SBTI.’
Keurig Green Mountain	Appears to no longer plan to set an SBT. Rationale not disclosed. Note: Keurig Green Mountain was purchased and taken private by JAB Holding.	Keurig combined with Dr. Pepper Snapple to form a new company (Keurig Dr. Pepper). Keurig Dr. Pepper indicates its intent to set an SBT within next two years.
Lennox International	Appears to no longer plan to set an SBT. Rationale not disclosed. Note: The company set a new intensity-based target that extends through 2024.	Company now plans to set an SBT within coming two years.
Norfolk Southern	n/a	Set a new goal in 2018 but not an SBT. No longer indicates it plans to set and SBT. No rationale provided.
Northern Trust	Appears to no longer plan to set an SBT. Company states, “There is currently no established science-based targets methodology in the sector.”	Company now plans to set an SBT within coming two years.
PerkinElmer	Appears to no longer plan to set an SBT. Rationale not disclosed.	States it plans to set a target within next two years.
Pinnacle West Capital (APS)	Appears to no longer plan to set an SBT. Note: In letter to ICCR members, the company stated it was exploring ways to “define and implement an SBT.” In its 2017 CDP response it indicated in no longer planned to set an SBT.	States it is assessing the possibility of establishing an SBT.
Sanyo Denki America	Appears to no longer plan to set an SBT. Rationale not disclosed.	No change. No CDP response. No climate-related disclosure found.
SunPower	Appears to no longer plan to set an SBT. Rationale not disclosed.	No CDP response. No indication on company website.
Texas Instruments	Appears to no longer plan to set an SBT. Rationale not disclosed.	No change. Not disclosed.
Unum Group	n/a	Goals changed from 2017 to 2018. New goals appear less robust than previous goals. Does not indicate intent to set an SBT.
UPS	n/a	UPS set a goal for its ground fleet that it considers an SBT. However, its goals only include 41% of the company’s total emissions (exclude airplanes).
Waters	Appears to no longer plan to set an SBT. Rationale not disclosed.	States the company is rebuilding ESG function and that goals will be forthcoming. No indication of timing nor reference to an SBT.

Engagement is a long-term endeavor. Here are areas for further discussion.

- **Strengthen targets**

Just as the Paris Climate Agreement created a mechanism for countries to review progress and increase the ambition of targets on a regular basis, companies need to do the same. For those companies that set targets before the IPCC's 1.5°C report was released, short-term and long-term goals should be reviewed and strengthened as necessary for consistency with science and public policy.

- **Consider Scope 3 emissions**

Most companies pursuing SBTI validation of their emission reduction targets are compelled to consider GHG emissions associated with their supply chains (i.e., Scope 3 emissions). All companies have an opportunity to think about how they can catalyze change throughout their supply/value chains.

- **Evolve climate-related financial disclosure**

Companies have the opportunity to continue to evolve their climate-related financial disclosure. High quality disclosure will increase efficiency in the capital markets, aid regulators and other stakeholders attempting to manage climate-related risk, and distinguish companies that are taking action. Companies should review current disclosure against the recommendations of the TCFD.

- **Advance smart public policy**

The most economically efficient way to tackle climate change is through public policy solutions that put a price on greenhouse gas emissions. All stakeholders need to consider how they can contribute to the widespread adoption of smart climate policy.



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Program Director, Climate Change at ICCR

cherman@iccr.org

www.iccr.org

In 2016 ICCR members wrote to 106 US-based companies that indicated in their 2016 CDP response they may set a science-based greenhouse gas (GHG) emissions reduction target.

We asked the following questions:

- What methodology/methodologies is the company considering to set the goal?
- What time horizon does the company envision for implementation?
- What challenges and opportunities has the company encountered?
- When does the company plan to publicly announce adoption of an SBT?

Based on company responses and CDP data we learned:

- Selecting and understanding methodologies for establishing an SBT is a challenge.
- Renewable energy is a critical building block to achieving targets.
- Reducing value chain emissions is an area of differentiation and leadership.
- Companies are planning long-term: goals stretch from 2025 to 2050.

Table 1: Company Engagement at a Glance

# of Companies	
105	received letter
35	responded (or acknowledged receipt)
25	sent a detailed response (written or verbal)
30	established an SBT*
5	received "SBTI" approval**
19	have a renewable energy target
12	no longer plan to set an SBT

*Numerous targets not yet approved by the SBTI have been identified as "science-based." Targets that appear to align with an absolute emissions reduction methodology were counted as science-based.

**SBTI refers to the Science-based Targets Initiative, a joint initiative by CDP, the UN Global Compact, World Resources Institute, and WWF. See [here](#) for more information.

More details: 106 companies were identified as part of the initial engagement list but we received confirmation that one letter was never delivered. Seven companies experienced some sort of corporate action during 2016/2017: Keurig Green Mountain was taken private by JAB Holding; Linear Technology was acquired by Analog Devices; Mead Johnson Nutrition was acquired by Reckitt Benckiser; Reynolds American was acquired by British American Tobacco; Sanyo Denki America was delisted; The Dow Chemical Company merged with E.I. du Pont de Nemours & Company; and Yahoo! was acquired by Verizon.

We wrote to companies from most sectors of the economy. The majority are large cap companies. Notably absent are most of the largest emitters.

All sectors of the economy, except energy, were represented in the universe of companies engaged. As a reminder, recipients of the letter were identified based on indicating in their CDP response they were considering setting an SBT. No energy companies did so.

The companies ranged in size (as measured by market capitalization) from \$500 million to over \$200 billion, with the majority ranging from \$10-50 billion.

Most of the companies are relatively small emitters—a subset of companies not frequently engaged.

Chart 1: Sectors

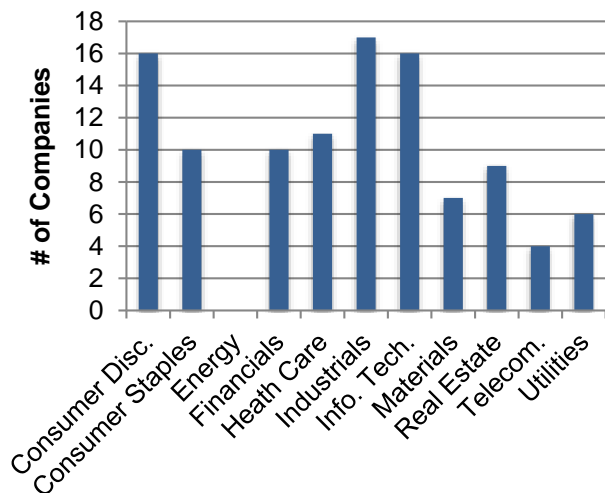


Chart 2: Market Capitalization (\$)

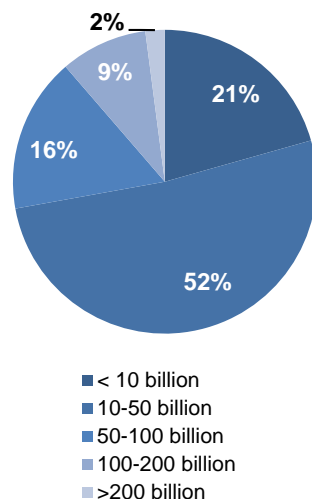
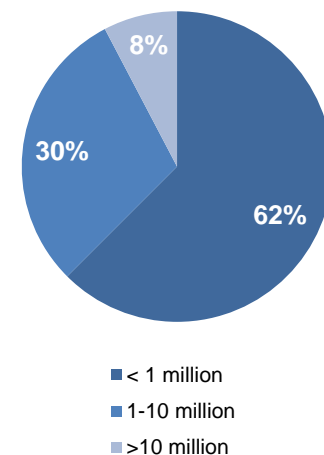
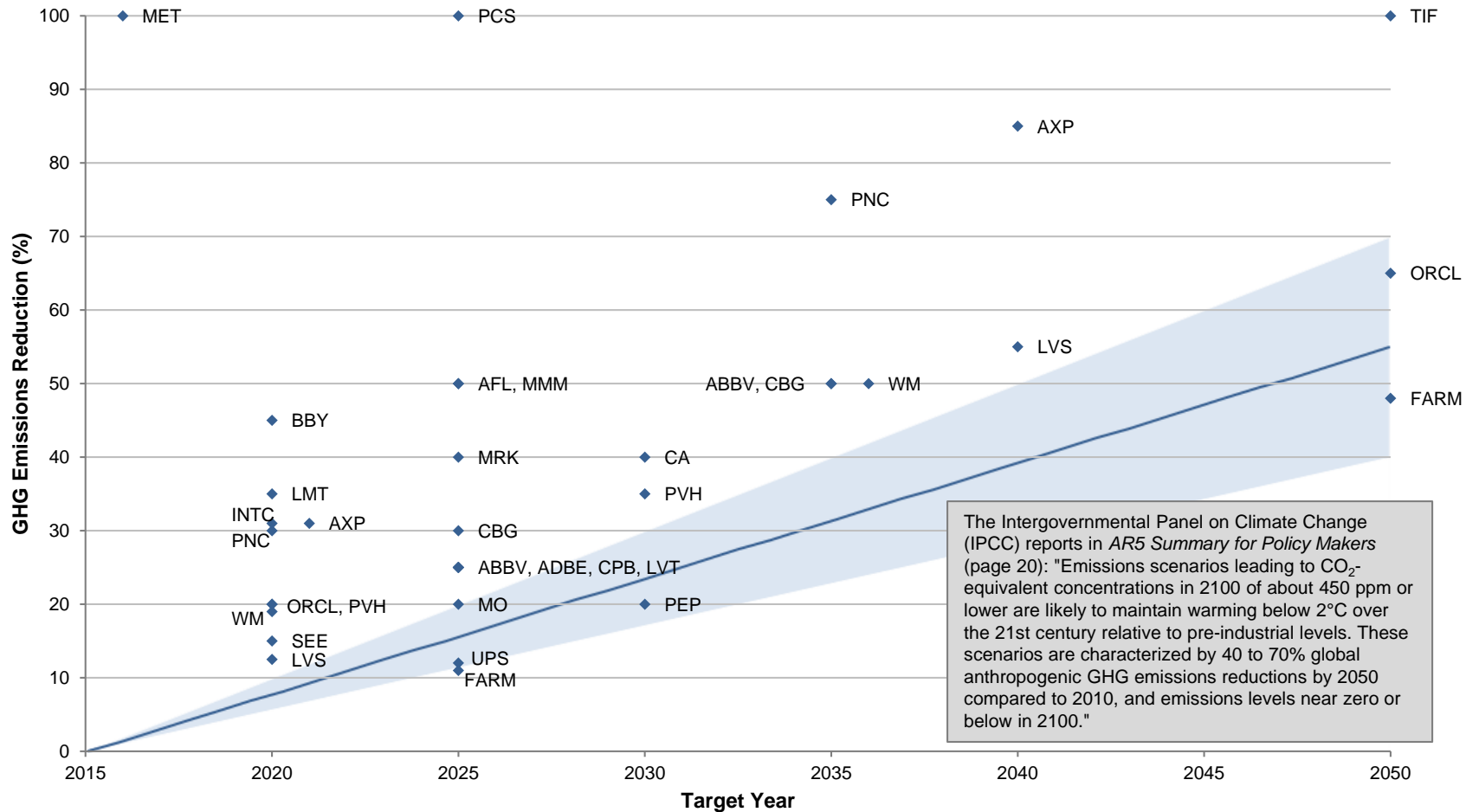


Chart 3: Total Scope 1&2 (Location based) GHG Emissions (Million Metric Tons)



Companies are setting ambitious near- and long-term goals.

Chart 4: Corporate Targets Compared to 2°C Scenario Model



Note: Goals above do not all have the same baseline year. See Appendix 3 for details, including baseline year, of reduction targets. See Appendix 6 for corporate targets compared to 1.5°C scenario model.

Selecting and understanding methodologies for establishing an SBT is a challenge.

- The SBT initiative has developed methodologies for a number of industries (prioritizing those with the largest climate impact), but methodologies do not cover the entire economy. For example, there is currently no sector-based methodology for the financial sector. Companies in sectors not covered need to consider an alternative methodology.
- Identifying an appropriate methodology is particularly challenging for companies with diverse lines of business.
- Setting an SBT is also more difficult for businesses in the midst of significant operational transition (for example, First Solar and Motorola Solutions).
- Sector-based methodologies don't necessarily take into account significant differences in operating models of companies within a sector (e.g., International Flavors and Fragrances as a chemicals company).
- Some companies have set an SBT but are still in discussion or are not planning to seek validation from the SBTI for their targets.
- Some companies expressed concern regarding the acceptance (or lack thereof) of certain methodologies by stakeholders.

Key Takeaways for Companies

First things first: Look at IPCC AR5 for the scientific context.

Regardless of approach, be transparent regarding methodology.

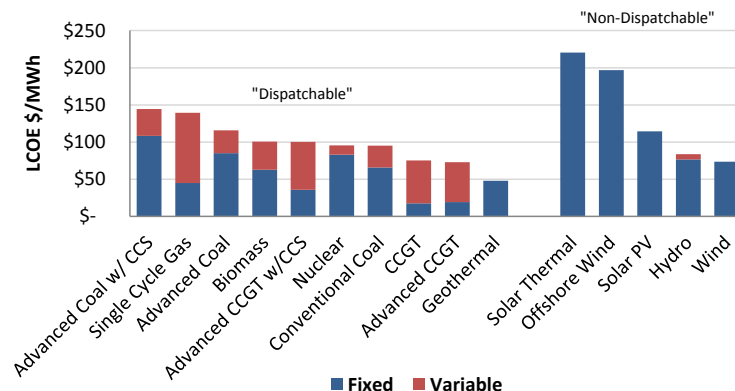
A sector-based methodology is not a precondition for setting an SBT. See also absolute- and economic-based approaches (www.sciencebasedtargets.org/methods).

Seeking SBTI-validated goals is the gold standard. SBTI does not require use of a sector-based methodology for emissions reduction, but it does require value chain goals for most companies as well as goals that extend at least five years into the future. Also, SBTs must not exclude more than 5% of Scope 1 emissions.

Renewable energy is a critical building block to achieving targets.

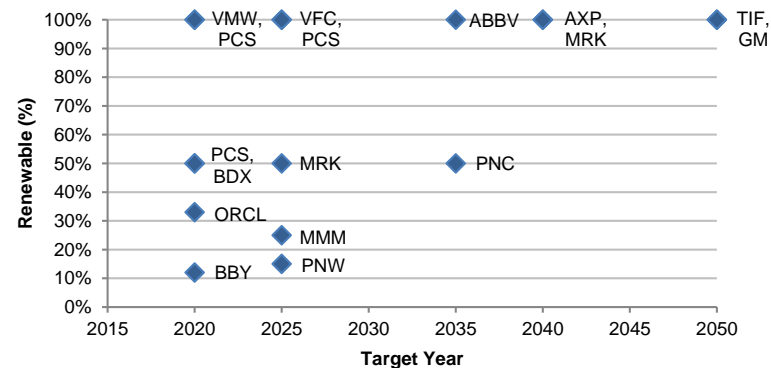
- Renewable energy (wind/solar) is a critical building block to reducing GHG emissions generally and achieving science-based targets.
- Some companies such as PepsiCo, PerkinElmer, and UPS point to the importance of renewable energy in achieving their targets, but have not set standalone renewable energy goals.
- The utilities among our survey—Eversource Energy, Exelon, and Pinnacle West Capital, parent company of APS—have efforts underway to generate or source more renewable energy.
- 19 companies have specific renewable energy commitments (see chart 6*), including several that are among the nearly 120 companies that have committed to power their operations with 100% renewable energy through the RE 100 initiative.**
- The precipitous price decline over the past five years of renewable technologies is allowing companies to purchase renewable electricity at similar rates, in many cases, to traditional fossil fuel powered electricity (see chart 5).
- Even more encouraging from a climate change mitigation perspective, these commitments to source renewable energy will continue to drive demand and help bring down the costs.
- Beyond wind and solar, some companies are also experimenting with other technologies. For example, Kroger is pursuing a strategy of converting food waste to renewable energy and Republic Services is developing several landfill-to-gas projects.

Chart 5: Fixed, Variable & Levelized Cost of Power



Source: EIA data; Boston Trust analysis

Chart 6: Select Renewable Energy Targets*



For further details on the comparative cost of renewable and fossil fuel powered generation technologies, see Lazard's [Levelized Cost of Energy V 11.0](#) published November 2017.

*Chart only includes goals with specific date and % stated in terms of % reduction. Several companies have multiple goals. For details see CDP responses.

**For more information on RE100, visit www.there100.org.

Reducing value chain emissions is an area of differentiation and leadership.

The bulk of most companies' impact on the climate is found upstream and/or downstream in their value chain. The prevailing sentiment in the recent past was that there was little that could be done about emissions outside the direct control of companies. A paradigm shift is underway.

An increasing number of companies are engaging their suppliers and considering ways to reduce various types of value chain, or Scope 3 emissions (see "Examples" below).

The Science-based Targets Initiative has recognized the importance of reducing value chain impact. If a company's Scope 3 emissions are 40% or more of the company's total Scope 1, 2, and 3 emissions, a Scope 3 target must be established in order for a target to be approved by SBTI.

Examples:

- Adobe commits to reduce Scope 3 business travel emissions per employee 5% by 2025.
- Best Buy has an aggressive SBT and is now working to add Scope 3 targets in order to qualify for SBTI validation.
- Campbell Soup set a goal using the SDA methodology and is now considering Scope 3 emissions targets.
- Farmer Brothers commits to reduce Scope 3 emissions 7% by 2025 and 31% by 2050, using a 2014 base year.
- Intel has a goal to reduce upstream and downstream logistics and distribution emissions by 15% (volume adjusted) and to increase the energy efficiency of notebook computers and data center products 25-times by 2020 from 2010 levels.
- MetLife is requiring 100 suppliers to disclose emissions and reduction activities.
- PepsiCo's target of 20% reduction of emissions by 2030 includes its value chain.

Table 2: What are Scope 3 emissions?

The GHG Accounting Protocol identifies 15 categories of Scope 3 emissions, including:

Upstream	Downstream
Purchased goods and services	Transportation and distribution
Capital goods	Processing of sold products
Fuel and energy related activities	Use of sold products
Transportation and distribution	End-of-life treatment of sold products
Waste generated in operations	Leased assets
Business travel	Franchises
Employee commuting	Investments
Leased assets	

For further reading regarding Scope 3 targets, see [SBTs: Common Pitfalls and Lessons Learned in Target Setting](#).

Other Observations

Setting goals creates opportunities

Reducing emissions, while frequently cast as a burden, can create opportunities. Though not many of the companies in our sample specifically highlighted opportunities, below are examples:

- One company stated that setting an SBT is an “opportunity to further engage internal and external stakeholders in setting and achieving relevant goals tied to business strategies.”
- Goals help better position the company for opportunities provided by the new low-carbon economy.
- The utilities in our sample noted that building new and replacing old infrastructure that results in emissions reductions is a significant financial opportunity.
- Several consulting firms working with clients on sustainability solutions noted that setting an SBT gives first hand experience and knowledge of the methodologies available, and provides a way to demonstrate sustainability leadership to potential clients.
- SBTs can result in bottom line cost savings associated with operational improvements and spur innovation in new services.

Reasons cited for no longer considering setting an SBT

- No methodology for sector
- Significant transition in business

Most of the 12 companies did not provide details regarding why they are no longer considering an SBT.

Previous goals

A number of respondents had met previous goals ahead of schedule. For example, Merck notes that it met its 2020 goal a full five years ahead of time. Similarly, Oracle met its previous targets ahead of schedule, as did Dr. Pepper Snapple Group.

Companies setting SBTs had previously established climate or energy related targets.

Appendix 1: What are science-based emissions reduction targets (SBT)?

Setting targets to reduce energy use and associated greenhouse gas emissions (GHG) has become common practice among major companies. Ceres reports in *Power Forward 3.0* that 48% of the 2016 Fortune 500 have a GHG, renewable energy, or energy efficiency goal or target. However, the ambition of those targets varies greatly.

In the past several years, environmental advocates and investors have championed the concept that scientific research should inform climate-related targets.

Various methodologies for determining a science-based target have been developed, but all goals should be related to the research as presented by the Intergovernmental Panel on Climate Change (IPCC) in its Fifth Assessment Report (AR5).^{*} The IPCC analysis of climate change mitigation studies finds that to have at least a 66% chance of avoiding the worst impacts of climate change, global emissions must be reduced by 40-70 percent by 2050.

CDP analysis of the 2017 climate survey indicates that less than 15% of the 1,000 largest publicly traded companies have set targets that align with the IPCC target.

Resources:

- [Power Forward 3.0](#) provides analysis of climate energy goals set by Fortune 500 companies.
- [Intergovernmental Panel on Climate Change \(IPCC\) Fifth Assessment Report \(AR5\)](#)
- [SBT methodologies](#)
- SBT Presentation: [Common Pitfalls and Lessons Learned in Target Setting](#).

The Science Based Targets Initiatives on SBTs

“Targets adopted by companies to reduce greenhouse gas (GHG) emissions are considered “science-based” if they are in line with the level of decarbonization required to keep global temperature increase below 2°C compared to pre-industrial temperatures, as described in the Assessment Report of the Intergovernmental Panel on Climate Change (IPCC). [Applies to the 4th or 5th AR of IPCC as well as modeling of the IEA.]”

Source: <https://www.ipcc.ch/organization/organization.shtml>

^{*}The Intergovernmental Panel on Climate Change (IPCC) is the leading international body for the assessment of climate change. It was established by the [United Nations Environment Programme \(UNEP\)](#) and the [World Meteorological Organization \(WMO\)](#) in 1988 to provide the world with a clear scientific view on the current state of knowledge in climate change and its potential environmental and socio-economic impacts.*

Appendix 2: List of companies engaged

3M (MMM)	CVS Health (CVS)	Linear Technology (LLTC)	Sempra Energy (SRE)
Abbott Laboratories (ABT)	Dr Pepper Snapple Group (DPS)	Lockheed Martin (LMT)	Sherwin-Williams (SHW)
AbbVie (ABBV)	Eaton (ETN)	Macerich (MAC)	Steelcase (SCS)
Adobe (ADBE)	Ecova (Part of Engie, ENGI)	Marriott International (MAR)	SunPower (SPWR)
AFLAC (AFL)	Eversource Energy (ES)	McDonald's (MCD)	T Mobile USA (PCS/TMUS)
Allergan (AGN)	Exelon (EXC)	Mead Johnson Nutrition (MJN)	Target (TGT)
Alliance Data Systems (ADS)	Farmer Brothers (FARM)	Merck (MRK)	Texas Instruments (TXN)
Allstate (ALL)	FedEx (FDX)	MetLife. (MET)	The Dow Chemical (DOW)
Altria Group (MO)	First Solar (FSLR)	Morgan Stanley (MS)	The Home Depot (HD)
American Express (AXP)	Flextronics International (FLEX)	Motorola Solutions (MSI)	Tiffany (TF)
American Water Works (AWK)	General Motors (GM)	News Corp (NWSA)	Total System Services (TSS)
Analog Devices (ADI)	Hanesbrands (HBI)	Norfolk Southern (NSC)	Union Pacific (UNP)
Anthem (ANTM)	HCP (HCP)	Northern Trust (NTS)	United Technologies (UTX)
AvalonBay Communities (AVB)	Hilton Worldwide (HLT)	Oracle (ORCL)	Unum Group (UNM)
Avnet (AVT)	Humana (HUM)	PepsiCo (PEP)	UPS (UPS)
Ball (BLL)	ICF International (ICFI)	PerkinElmer (PKI)	Varian Medical Systems (VAR)
Becton, Dickinson and Co. (BDX)	Intel (INTC)	Pinnacle West Capital (PNW)	VF Corporation (VFC)
Berry Plastics (BERY)	International Flavors & Fragrances (IFF)	Pitney Bowes (PBI)	VMware (VMW)
Best Buy (BBY)	JLL (JLL)	PNC Financial Services Group (PNC)	Waste Management (WM)
BNY Mellon (BK)	Johnson Controls (JCI)	Prologis (PLD)	Waters (WAT)
Boeing (BA)	Juniper Networks (JNPR)	Prudential Financial (PRU)	Welltower (HCN)
Bristol-Myers Squibb (BMY)	Keurig Green Mountain (GMCR)	PVH (PVH)	WestRock (WRK)
CA Technologies (CA)	Kimco Realty (KIM)	Republic Services (RSG)	Weyerhaeuser (WY)
Campbell Soup (CPB)	Kroger (KR)	Reynolds American (RAI)	Yahoo! (YHOO)
CBRE Group (CBG)	Las Vegas Sands (LCS)	Royal Caribbean Cruises (RCL)	Yum! Brands (YUM)
CenturyLink (CTL)	Lennox International (LII)	Sanyo Denki America (SYDKF)	
Coach (Tapestry) (COH)	Level 3 Communications (LVLT)	Sealed Air (SEE)	

Appendix 3: Company GHG Reduction Goals

Company	Ticker	Baseline Year	Baseline Year Emissions	Target Year	Absolute Emissions Reduction Goal (%)
3M	MMM	2002	18,300,000	2025	50
Aflac	AFL	2007	29,765	2025	50
BestBuy	BBY	2009	1,031,706	2020	45
PNC	PNC	2009	480,206	2020	30
PNC	PNC	2009	480,206	2035	75
Lockheed Martin	LMT	2010	1,289,470	2020	35
Altria	MO	2011	549,075	2025	20
American Express	AXP	2011	157,365	2021	31
American Express	AXP	2011	157,365	2040	85
Waste Management	WM	2011	13,006,771	2020	19
Waste Management	WM	2011	13,006,771	2036	50
Intel	INTC	2012	1,275,000	2020	31
MetLife	MET	2012	177,328	2016	10
MetLife	MET	2012	177,328	2016	100
Sealed Air	SEE	2012	674,239	2020	15
Tiffany	TIF	2013	43,306	2050	100
Farmer Brothers	FARM	2014	48,213	2025	11
Farmer Brothers	FARM	2014	48,213	2050	48
Level 3 Communications	LVLT	2014	689,553	2025	25
PVH	PVH	2014	n/a	2020	20
Abbvie	ABBV	2015	665,467	2025	25
Abbvie	ABBV	2015	665,467	2035	50
Adobe	ADBE	2015	64,736	2025	25
CA Technologies	CA	2015	61,214	2030	40
CBRE Group	CBG	2015	33,949	2025	30
CBRE Group	CBG	2015	33,949	2035	50
Las Vegas Sands	LVS	2015	1,037,811	2020	12.5
Las Vegas Sands	LVS	2015	1,037,811	2040	55
Merck	MRK	2015	1,501,000	2025	40
Oracle	ORCL	2015	370,414	2020	20
Oracle	ORCL	2015	370,414	2050	65
PepsiCo	PEP	2015	5,751,705	2030	20
PVH	PVH	2015	134,459	2030	35
UPS	UPS	2015	5,636,000	2025	12
Campbell Soup	CPB	2015	735,556	2025	25
T-Mobile	PCS/TMUS	2015	981,710	2025	100

Source: Company CDP climate change survey responses

Appendix 4: Companies that have not set an SBT and did not respond to ICCR letter

Companies that did not respond to the letter, do not appear to have set new goals, and still indicate they plan to set an SBT:

Allergan	HCP
Alliance Data Systems	Humana
Allstate	Johnson Controls
Analog Devices	Kimco Realty
Anthem	Macerich
AvalonBay Communities	Morgan Stanley
Avnet	News Corp
Becton, Dickinson	Norfolk Southern
Berry Plastics	Pitney Bowes
Boeing	Prudential Financial
Bristol-Myers Squibb	Sherwin-Williams Company
Century Link	The Home Depot
CVS Health	Total System Services
Dr. Pepper Snapple Group	Union Pacific
Eaton	Unum Group
Ecova (Engie)	Varian Medical Systems
Exelon	WestRock
FedEx	Weyerhaeuser
Flextronics International	Yum! Brands
General Motors	

Companies that did not set an SBT, but did respond in some way to the investor letter:

Abbott Laboratories
Ball
Hanesbrands
Hilton Worldwide
International Flavors and Fragrances
JLL
Juniper Networks
Kroger
Marriott International
McDonalds
PerkinElmer
Republic Services
Sempra Energy
Target
Tiffany
United Technologies
Welltower

Several companies are not included in the list above, although they did not respond to the letter or appear to have set new goals: American Water Works is not included as it states in its CDP response the goal will be set in 2017; Motorola Solutions anticipates setting a new goal in Q4 2017; Prologis states its goal will be announced in 2017; SunPower is undergoing significant restructuring. Companies that were acquired or underwent some other corporate action are also not included.

Appendix 5: Companies that no longer plan to set an SBT

Company	Rationale
Coach (Tapestry)	Not disclosed.
Eversource Energy	Not disclosed.
First Solar	Business transition. Company notes it “remain(s) committed to evaluating and striving towards science-based targets.”
Hanesbrands	“No established science-based targets methodology in this sector.”
Keurig Green Mountain	Not disclosed. Note: Keurig Green Mountain was taken private by JAB Holding.
Lennox International	Not disclosed. Note: The company did set a new intensity-based target that extends through 2024.
Northern Trust	“There is currently no established science-based targets methodology in the sector.”
PerkinElmer	Not disclosed.
Pinnacle West Capital (APS)	Not disclosed. Note: In letter to ICCR members, the company stated it was exploring ways to “define and implement an SBT.” In its 2017 CDP response it indicated in no longer planned to set an SBT.
Sanyo Denki America	Not disclosed. Note: The company appears to have been delisted during 2017.
Texas Instruments	Not disclosed.
Waters	Not disclosed.

Appendix 6: Corporate Targets Compared to 1.5°C Scenario Model

As the stringency of reduction targets increases, fewer companies appear on track.

