



CLIMATE CHANGE

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	CDP CLIMATE CHANGE SUBMISSION	PDF 0.916MB
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Implementing solutions to address climate change is important to the future of our company, customers, consumers and our shared world.

We have a strong interest in reducing our greenhouse gas (GHG) emissions given the risks we believe climate change presents to our business.

Climate change could have an impact on the quantity and quality of agricultural raw materials available for our products; create weather patterns that impact our ability to operate our facilities and supply chain; as well as impact the availability and quality of water. The impact of climate change could also adversely affect the communities that we operate in and source from due to possible agricultural uncertainty. These potential challenges to our business and the community make GHG emission reductions a priority for PepsiCo.

We believe industry and governments should commit to science-based action to keep global temperature increases to 2° Celsius above pre-industrial levels, as described by the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. **Our goal to reduce absolute GHG emissions across our value chain by at least 20 percent by 2030**, part of our Performance with Purpose (PwP) 2025 agenda, was made within this science-based context.

Given the impact to our business, long term climate risks are considered by both the PepsiCo Board of Directors, including its Public Policy & Sustainability Committee, and the PepsiCo Risk Committee. Risk mitigation is considered in all aspects of the business – for example, environmental sustainability criteria are incorporated into

our Capital Expenditure Filter, which is applied to all capital expenditure requests over \$5 million. In addition, we are working to embed environmental sustainability impact assessment including GHG emissions within our new product development process.

Our GHG emissions reduction goal covers our entire value chain and is an absolute goal, meaning that it includes reductions in emissions from our current corporate carbon footprint as well as additional emissions that result from anticipated business growth between now and 2030. Our goal has been approved by the Science Based Targets Initiative, a partnership between the CDP, World Resources Institute, World Wildlife Fund and the UN Global Compact. This means that PepsiCo's goal is in line with what climate science says is necessary to keep global warming below 2° Celsius.

Achieving our 20 percent absolute reduction goal will require programs in both our own direct operations (to reduce Scope 1 and 2 GHG emissions) and in our value chain (to reduce Scope 3 emissions). Our current and future efforts to reduce Scope 1 and 2 emissions build on the groundwork we laid during our first generation of Performance with Purpose goals. Between 2006 and 2015, we implemented projects across our legacy operations that improved energy efficiency by nearly 18 percent. For our new goal, we have expanded the scope of our GHG emission reduction work to encompass our business as it exists today, a larger and more complex operational footprint.

OUR GOAL 20% ↓ TO REDUCE ABSOLUTE GHG EMISSIONS ACROSS OUR VALUE CHAIN BY AT LEAST 20% BY 2030
(against 2015 baseline)

This goal has been approved by the Science Based Targets Initiative, meaning that PepsiCo's goal is in line with what climate science says is necessary to keep global warming below 2° Celsius.

SCOPE 1 & 2 PROGRESS AND PERFORMANCE

In these early years of our goal, we are focusing on investing in capability and upgrading equipment to more efficient and low carbon options. This has enabled us to deliver a 2.2 percent decrease in emissions in 2017 against the 2015 baseline, which represents an 11 percent progress to our 2030 goal. For PepsiCo, Scope 1 and 2 emissions, which make up approximately 8 percent of our carbon footprint, come from sources that include on-site fuel used to generate heat and electricity, fleet fuel, and purchased electricity. We are investing in a variety of actions across our operations, including energy efficiency improvements driven by our Resource Conservation (ReCon) program, a comprehensive, global platform of resources, tools and programs designed to improve energy, water and waste efficiencies in our manufacturing processes.

SCOPE 1 & 2 EMISSIONS INCLUDE EMISSIONS COMING FROM:



Sources we own or control, such as fuel used in our manufacturing plants, or the gasoline and compressed natural gas in our fleet (Scope 1)



The generation of electricity we purchase (Scope 2)

OUR PROGRESS*

2.2% PROGRESS IN 2017 VS. 2015 BASELINE

emissions in 2017
5,448,468MT

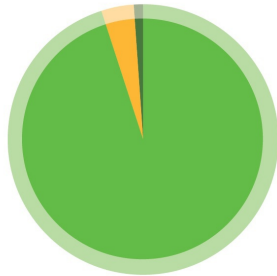
emissions in 2016
5,497,982MT

emissions in 2015
5,568,957MT



*2015 and 2016 data were recalculated in 2018 based on the re-franchise of some of our sites, and the consolidation of fuel emission factors into a single-source inventory, as well as inventory updates to emission factors.

OUR 2017 USAGE



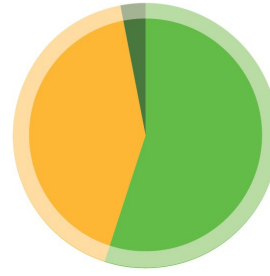
TOTAL ELECTRICITY PURCHASED* = 4,065,400 MWh**

- **95.4%** - Purchased Non-Renewable Electricity: 3,878,500 MWh
- **4.3%** - Purchased Renewable Electricity 175,000 MWh
- **0.3%** - On-site Wind & Solar Generation 11,900 MWh

*These numbers are rounded.

**Excludes electricity generated on site from fuels, as the fuel is included in the chart on the right.

***Includes Scope 2 imported steam.



TOTAL FUEL USED FOR ENERGY PURPOSES = 19,294,000 MWh**

- **54.8%** - Natural Gas: 10,567,000 MWh
- **42.5%** - Other fossil fuel derived fuels (Including Fleet Fuels): 8,191,000 MWh
- **2.8%** - Bio derived fuels (Including Fleet Biofuels): 536,000 MWh

*These numbers are rounded.

**Fuel data includes fleet fuels.

In addition, we made key investments in high efficiency lighting, building management systems, solar photovoltaics, combined heat and power plants, and the conversion of our last coal boiler in the US to fire on natural gas.

For a number of years, we also have made significant improvements in fleet efficiency. One way to improve fleet efficiency is to diversify the types of fuels we use. Our Frito-Lay North America Compressed Natural Gas (CNG) fleet drove 63 million miles in 2017, and has driven over 211 million miles life-to-date. Today, 42 percent of our Over-the-Road fleet has been converted to CNG.

Moving forward, we plan on continuing our investments in low carbon and renewable energy, with ongoing investments in fleet efficiency technology and alternative fuels, solar photovoltaics, equipment upgrades and replacement as well as looking for opportunities to purchase renewable electricity for our sites.

OUR EFFORTS TO REDUCE GHG EMISSIONS IN OUR OPERATIONS, WE HAVE EXECUTED A VARIETY OF INITIATIVES, INCLUDING



CLEANER TRANSPORTATION

We are investing in electric, hybrid, CNG and fuel-efficient fleets



RENEWABLE ENERGY

We are investing in and procuring renewable energy like biogas, biomass, wind and solar



RECON PROGRAM & EMPLOYEE EDUCATION

Through conservation programs and education, we are delivering thermal and electric energy-efficiency improvements and empowering our workforce to reduce energy consumption

SCOPE 3: PROGRESS AND PERFORMANCE

While we continue to progress on reducing GHG emissions within our direct operations, we know that our greatest opportunity for progress lies in reductions outside of our direct operations – our Scope 3 emissions, which account for approximately 92 percent of our carbon footprint. For PepsiCo, these emissions originate from farming, packaging manufacture, and third-party transportation, among other sources.

In determining the methodology behind our Scope 3 emissions reduction tracking, we projected our Scope 3 emissions to 2030 based on the best available business as usual growth estimates. We also determined what our Scope 3 emissions should be in 2030 if we reduced 20 percent against our 2015 baseline. The difference between these two trajectories is our best estimate of our target reduction amount for Scope 3 emissions. We believe this is conservative, as we do not expect our emissions to grow in a business as usual manner.

In 2017, we reduced Scope 3 emissions by approximately 2.1 million metric tonnes versus our 2015 baseline. This represents approximately 7 percent of our 2030 target reduction amount. These reductions were driven by improvements in our vending and cooler equipment in retailers, in which we reduced GHG emissions by 19 percent in 2017. We did so by replacing less energy efficient models with more efficient ones, all compliant with latest standards of DOE2017 and e-star3, saving approximately 1.2 billion kWh of energy. Transitioning to hydrofluorocarbon (HFC)-free equipment has been a major focus for us, with all of our company-owned units in Europe now HFC-free, and a goal for those in North America to follow by 2020, and globally by 2025.

We are working to build our strategy and align stakeholders around our main drivers of Scope 3 emissions in agriculture, packaging and third-party logistics. We are also focusing our efforts on adding a GHG lens to many of our existing initiatives in the areas of sustainable sourcing, waste and product transformation. In these initial years of our goal, as we ramp up our strategy for Scope 3 in the key focus areas, we are expecting to see progress come from these existing initiatives. Therefore, in addition to our vending and cooler equipment, emission reductions have also been achieved through our progress towards sustainably sourcing palm oil, reducing sugar in our beverages, participation in industry efforts towards increasing recycling in the U.S., such as the Closed Loop Fund and The Recycling Partnership, and waste diversion from our facilities.

Going forward, our plan to reduce Scope 3 emissions includes continuing to improve vending and cooler efficiencies, increasing recycled content in packaging materials, developing alternative packaging materials, reducing GHG emissions in our agricultural supply chain, and importantly, increasingly incorporating environmentally-conscious design into our product development process.

SCOPE 3 EMISSIONS INCLUDE INDIRECT EMISSIONS THROUGHOUT OUR VALUE CHAIN FROM THINGS LIKE:



OUR PROGRESS

7% PROGRESS TOWARDS OUR TARGET REDUCTION AMOUNT, WHICH EQUALS MORE THAN A 2 MILLION METRIC TONNE REDUCTION IN 2017

These results were driven largely by replacing older vending and cooler equipment with higher-efficiency machines and continuing to transition to hydrofluorocarbon (HFC)-free refrigerants.



EUROPE: All company-owned vending/cooler equipment is HFC-free

NORTH AMERICA: Our goal is for all company-owned vending/cooler equipment to be HFC-free by 2020

OUR EFFORTS

OUR PLAN TO REDUCE SCOPE 3 EMISSIONS INCLUDES:



CONTINUING TO IMPROVE vending and cooler efficiencies



INCREASING RECYCLED CONTENT in packaging materials



DEVELOPING alternative packaging materials



REDUCING GHG EMISSIONS in our agricultural supply chain



INCORPORATING ENVIRONMENTALLY CONSCIOUS DESIGN into our product development process

RELATED TOPICS

AGRICULTURE

FLEET EFFICIENCY

HFC

RENEWABLE ENERGY

SUSTAINABLE SOURCING





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