



Together for Tomorrow, as *We Make the World a Better Place*

David J. Cox, NIA President

Joe Mlachak, National Sales Manager, Fit Tight
Covers, Evansville, IN

NIA | National Insulation
Association®

THE VOICE OF THE INSULATION INDUSTRY™

TO INFINITY AND BEYOND! LIMIT GLOBAL WARMING TO 1.5°C

- Earth Leaders Summit: April 2021
 - The United States submitted a new “nationally determined contribution” (NDC) under the Paris Agreement setting an economy-wide emissions greenhouse gas target of a 50-52% reduction below 2005 levels in 2030.
 - Canada will strengthen its NDC to a 40-45% reduction from 2005 levels by 2030, a significant increase over its previous target to reduce emissions 30% below 2005 levels by 2030.
 - China has pledged carbon neutral by 2060, but start in 2030.
 - Conference Of Parties 26 Summit—Glasgow, Scotland, Nov 1–2, 2021.

NEW VOCABULARY FOR SURE!

- Greenhouse gas (GHG) emissions
 - Scope 1 (company only), Scope 2 (includes energy we buy), Scope 3 (employees, suppliers—i.e., track business travel!)
- Carbon capture utilization and storage (CCUS or CCS)
- Green, Blue, and Grey Hydrogen
- Blue and Green Ammonia
- Black, Grey, Blue, and Green Methanol
- Green hydrogen from electrolysis
- Embodied Carbon = total GHG emissions arising from the manufacturing, transportation, installation, maintenance, and disposal of building materials.
- Environmental Product Declarations (EPD) & Life Cycle Assessments (LCA)

THE BREADTH OF ESG



- Climate change
- Carbon emissions
- Energy efficiency
- Water scarcity
- Waste management
- Pollution mitigation



- Diversity and inclusion
- Workplace health and safety
- Labor standards
- Supply chain management
- Product safety
- Community impact

Safety of employees.....





- Board composition
- Executive compensation
- Political contributions
- Shareholder rights
- Accounting & reporting

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS



NEXTERA SUSTAINABILITY GOALS TIED TO UN’S SDGs

SDG	Our Approach
<div>7 AFFORDABLE AND CLEAN ENERGY</div> 	<p>Our investment in emissions-free and clean generation has reduced the impact on the air we breathe and demonstrates our commitment to environmental protection and stewardship. Our strategy is based on generating and delivering clean energy and building energy infrastructure that’s reliable and affordable.</p> <p>We expect that our investments in emissions-free wind and solar generation, innovative battery storage technology, low-emissions natural gas generation, safe and emissions-free nuclear power, industry-leading energy efficiency programs and transmission lines designed to deliver energy where it’s needed when it’s needed will enable us to continue providing a wide range of benefits to our many valued stakeholders.</p> <ul style="list-style-type: none"> » From 2019-2030, FPL plans to install more than 30 million solar panels – resulting in more than 10,000 new megawatts of solar in Florida. » From 2019-2022, NEER expects to bring online an additional 3,800 to 7,300 megawatts of clean, emissions-free solar energy. » Our capital investments also will help us meet our goal of reducing our carbon dioxide (CO2) emissions rate 67% by 2025 from a 2005 baseline.
<div>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</div> 	<p>As one of the largest electric power and energy infrastructure companies in North America and a leader in the renewable energy industry, NextEra Energy is committed to building a sustainable energy future that is affordable, reliable and clean.</p> <p>By investing in smart infrastructure and innovative clean energy solutions, we are helping to build a sustainable energy future that is affordable, reliable and clean.</p> <ul style="list-style-type: none"> » Over the past decade, we have invested ~\$100 billion in infrastructure capital deployment, making us the largest U.S. infrastructure investor in the energy industry and one of the largest capital investors across any industry in the U.S. over this period.

CLIMATE DISCLOSURE & REPORTING

- Climate Disclosure Regulation Is the Biggest Addition to Company Disclosures Since the Great Depression.
- Sustainability Accounting Standards Board (SASB) Metrics & SEC Reporting Consistencies for Public Companies.
- These Reports “Help Investors Understand Climate-Related Risks Companies Face and How They Are Managing Them.”

EXAMPLES: RATING SCORES OF ENVIRONMENTAL SOCIAL GOVERNANCE



MSCI CLIMATE

MSCI

IMPLIED TEMPERATURE RISE **over 4°C**

LAGGING ≥ 3.85°C	MISALIGNED > 2°C - < 3.85°C	2°C ALIGNED ≤ 2°C
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2°C Trajectory



Phillips 66

Industry Group: Refiners & Pipelines

Country: United States

ESG Risk Rating

32.7 High Risk

Negligible	Low	Medium	High	Severe
0-10	10-20	20-30	30-40	40+

Last Update: Oct 9, 2021



PHILLIPS 66 (PSX)

Industry: Oil & Gas Refining, Marketing, Transportation & Storage
Country/Region: United States of America

MSCI
ESG RATINGS



CCC	B	BB	BBB	A	AA	AAA
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Phillips 66's rating remains unchanged since June, 2019.

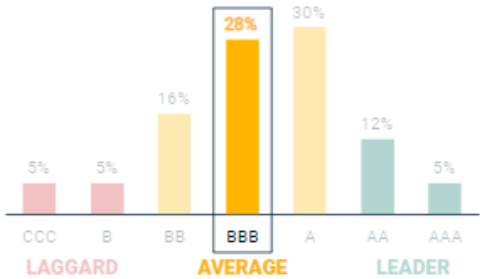
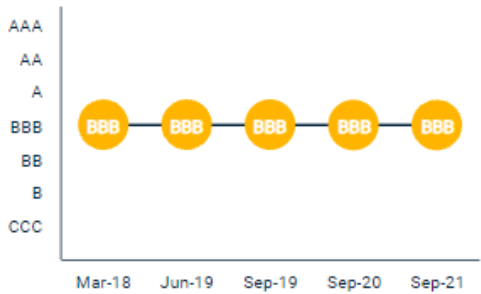
Phillips 66 is **average** among 43 companies in the **oil & gas refining, marketing, transportation & storage industry**.

ESG Rating history

MSCI ESG Rating history data over the last five years or since records began.

ESG Rating distribution

Universe: MSCI ACWI Index constituents oil & gas refining, marketing, transportation & storage, n=43.



We focus on the key issues material to the **oil & gas refining, marketing, transportation & storage industry**. Here is how **Phillips 66** compares to industry peers. MSCI also evaluates companies on their controversial business activities (weapons, tobacco, gambling, global norms and principles etc) and sustainable impact solutions (renewable energy, health, education etc). This information is only factored into the MSCI ESG Ratings from a financial risk perspective. For more details, visit the [ESG investing page](#).

ESG LAGGARD	AVERAGE	ESG LEADER
 CARBON EMISSIONS	 CORPORATE GOVERNANCE	 CORPORATE BEHAVIOR
	 COMMUNITY RELATIONS	 HEALTH & SAFETY

ASTRAZENECA ZERO CARBON STRATEGY

AstraZeneca's 'Ambition Zero Carbon' strategy to eliminate emissions by 2025 and be carbon negative across the entire value chain by 2030

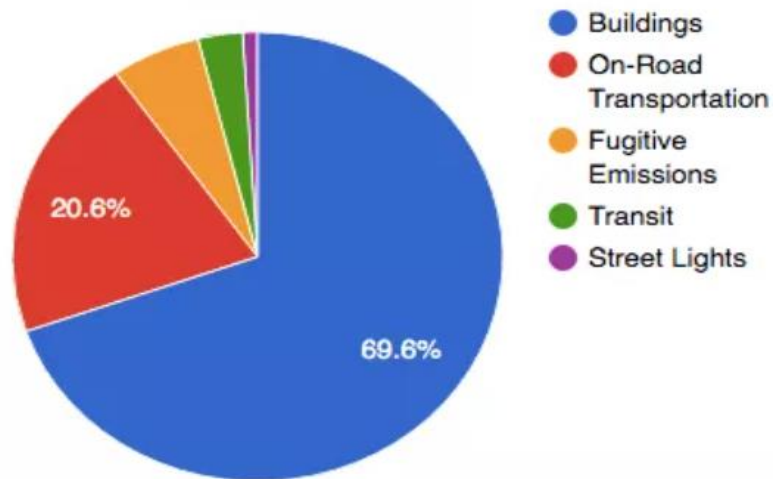
PUBLISHED: 22 January 2020

The \$1bn programme will include the launch of next-generation respiratory inhalers and a wide range of energy initiatives to reduce climate impact to zero

NEW YORK CITY LOCAL LAW 97 OF 2019 (CLIMATE MOBILIZATION ACT)

- Beginning in 2024, buildings over 25,000 square feet will have to meet carbon emissions limits based on the facility's occupancy group type.
- Carbon Emissions Limits Per Occupancy Group (KGCO₂e/sf) IE – Daycare 7.58, Health Care 23.81

New York City Greenhouse Gas Emissions (By Source)



Beginning May 1st, 2025

- This reporting must occur annually and the report must be prepared by a registered design professional.

OFFSETTING CO2 EMISSIONS – MECHANICAL INSULATION IS AN OBVIOUS CHOICE!



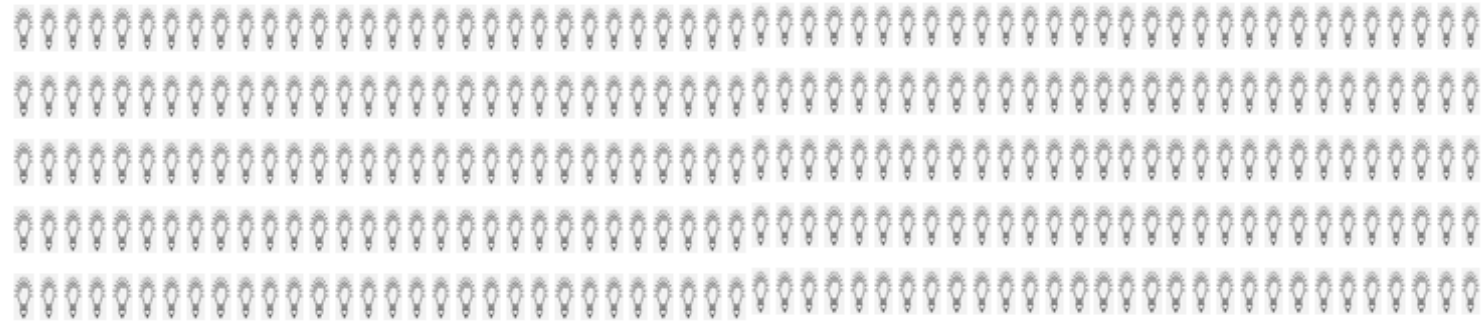
One full size pickup truck⁽¹⁾ that is driven 20,000 miles emits approximately 18,000 lbs of CO₂.

How can we offset the emissions from one pickup truck?

We could plant 360 trees⁽²⁾



We could replace (310) 43-watt incandescent light bulbs with LED light bulbs⁽³⁾



Or we could insulate approximately 8' of bare 4" pipe operating @ 350F with 2" of insulation ⁽⁴⁾



⁽¹⁾ 2021 Ford 150 2.7 L pick up emits 406 grams of carbon per mile; Source – EPA Fuel economy and greenhouse gas emissions sticker on truck

⁽²⁾ <http://www.tenmilliontrees.org/trees/> Typical tree on average saves 50 pounds/yr. of CO₂

⁽³⁾ <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator> Replace a 43W incandescent that operates 3 hours a day would reduce CO₂ 58 lbs. / year

⁽⁴⁾ Crall, CP Insulation is Greener than trees. Insulation Outlook Jan 2009



1 Gallon of
Gasoline



+



=

Propels a 2.7L
pick up truck 23
miles



Imagine driving down
the road and for
every mile, you dump
52 jugs of something
along the way



Emits 20 lbs of CO2
Enough CO2 to fill 1200-gallon jugs

ENVIRONMENTAL PRODUCT DECLARATION

This is all part of the information used to create a Life Cycle Analysis

- A1 = Raw Materials
- A2 = Raw Materials Transportation
- A3 = Manufacturing
- A4 = Distribution
- A5 = Installation
- C1 = Deconstruction
- C2 = Transport to End of Life
- C3 = Waste Processing
- C4 = End of Life Disposal



Joe Mlachak
National Sales Manager
Fit Tight Covers



ASTRAZENECA: AN ENERGY APPRAISAL CASE STUDY

Joe Mlachak
Fit Tight Covers/National
Sales Manager

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OVERVIEW

- How did we identify customer as a quality target?
- Results of the Appraisal
- Key Takeaways
- Net Zero Goals: Read the Fine Print

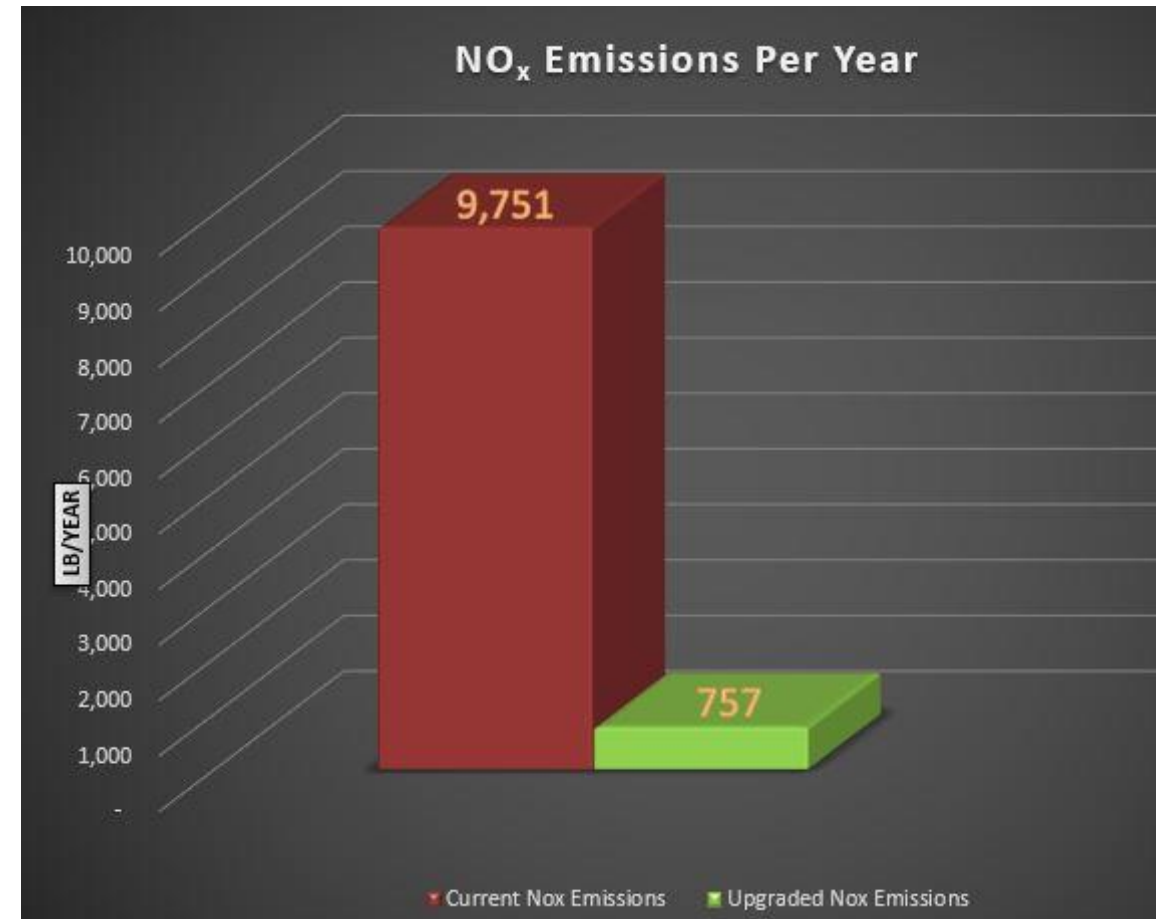
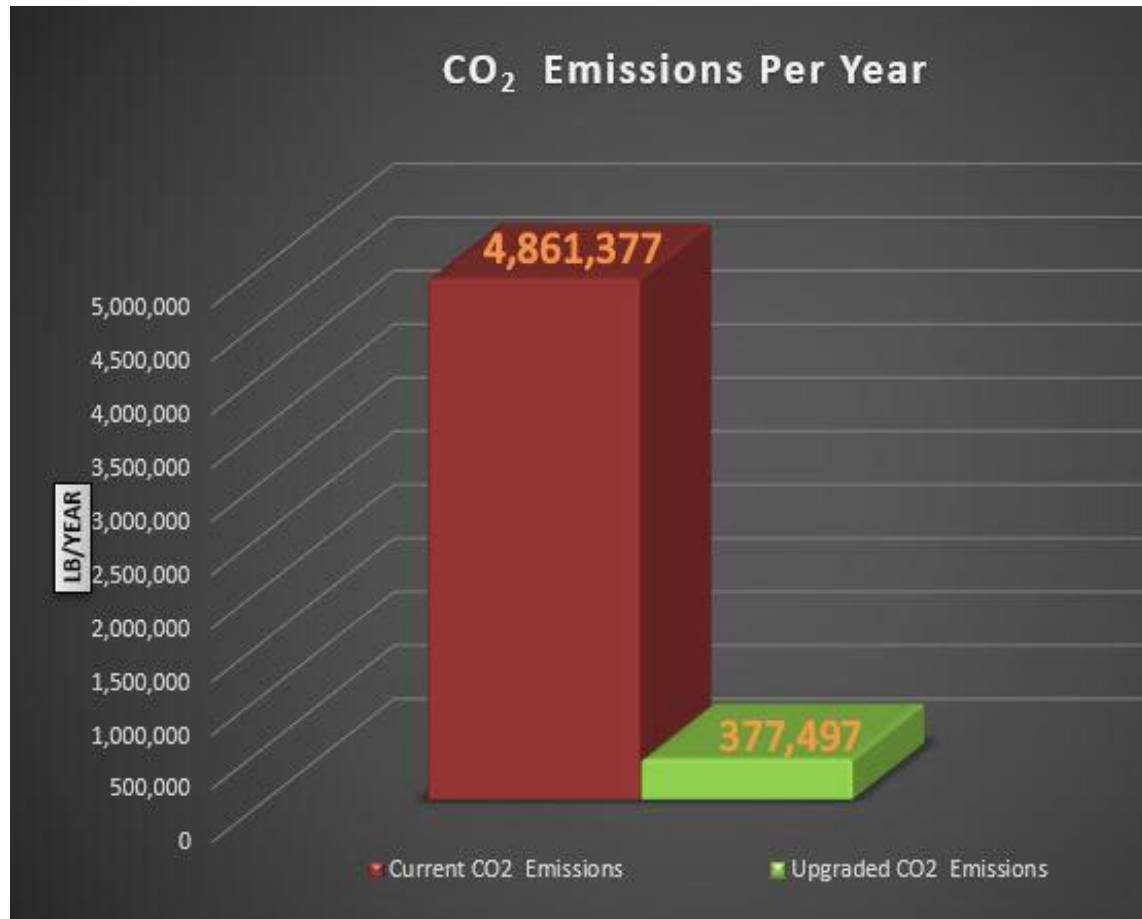
HOW DID WE IDENTIFY ASTRAZENECA AS TARGET?

- Published global initiative to be carbon neutral by 2025
- Leveraged public information to obtain meeting
- Existing, aging facility with complex piping system
- There was a win-win opportunity

RESULTS OF APPRAISAL

- Upgrading the insulation on the items identified would result in estimated savings of:
 - \$93,761 per year
- Cost to operate the identified items as currently insulated:
 - \$101,651 per year
- Cost to operate the identified items if upgraded:
 - \$7,890 per year
- Reduction in heat flow:
 - 28,060,191 kBTU per year
- Reduction in CO₂ emissions:
 - 4,492,880 pounds per year
- Reduction in NO_x emissions:
 - 8,994 pounds per year

REDUCED GHG EMISSIONS



GHG EQUIVALENCIES CALCULATOR

If You Have Energy Data		If You Have Emissions Data	
Amount	Unit	Gas	
4483880	Pounds	CO ₂ - Carbon Dioxide or CO₂ Equivalent*	
	Metric Tons	Carbon or Carbon Equivalent	
	Metric Tons	CH ₄ - Methane	
8994	Pounds	N ₂ O - Nitrous Oxide	
	Metric Tons	HCFC-22	- Hydrofluorocarbon gases
	Metric Tons	CF ₄	- Perfluorocarbon gases
	Metric Tons	SF ₆	- Sulfur Hexafluoride

Greenhouse gas emissions avoided by



Carbon sequestered by



OTHER BENEFITS

- Improved Process Control
 - Better insulated process piping results in more easily controlled process systems
- Reduced Boiler Usage
 - Reduction in chemical treatment
 - Reduced maintenance
 - Improved lifespan
- Improved Working Conditions
 - Reduced ambient temperatures
 - Reduced ambient noise
- Personnel Protection
 - OSHA standard 1910.261(k)(11) states: *Steam and hot-water pipes*. All exposed steam and hot-water pipes within 7 feet of the floor or working platform or within 15 inches measured horizontally from stairways, ramps, or fixed ladders shall be covered with an insulating material or guarded in such manner as to prevent contact.
 - Industry standard is to insulate anything 140°F or more

KEY TAKEAWAYS

- Our potential customer base is growing
 - A fifth of the world's largest companies have net zero goals
- Carbon is a new Currency
 - Format your presentations accordingly (EPA Calculator)
- Published carbon goals help get meetings!!
- New roles specific to energy and company-wide committees
- Ask questions that will help you get the W
 - Simple payback goals
 - Green House Gas Goals
 - Shared pools of money to fund project
- Thermal images are impactful!!
- Challenge yourself
 - First appraisal will feel clunky, but it will get easier over time
 - Be different than your competition; educate customers and add value

PRV exposed at 355F



The Climate Pledge 2040 (theclimatepledge.com)

A Fifth of the World's Largest Companies Committed to Net Zero Targets

2040

Amazon

Pepsico

IBM

jetBlue

Siemens

Mercedes-Benz

Verizon

2030

Apple

Ikea

Burger King

Facebook

Jacob's Engineering

2025

AstraZeneca

O2

Bloomberg LP

WPP

"The companies together represent sales of \$14 Trillion" Forbes Magazine, March 2021

DELL TECHNOLOGIES CARBON FOOTPRINT

Today's Ground Zero for 2050's Net Zero

Recent global conversation about climate change has driven Dell Technologies to go beyond simply reducing greenhouse gas emissions (GHG) emissions. By 2050, Dell Technologies will reach net-zero GHG emissions across Scopes 1, 2 and 3. This carbon footprint represents where we are starting from.

MAKING OUR PRODUCTS

Indirect Emissions

SCOPE 3: CATEGORY 1

Purchased goods and services

3,748,600 MTCO₂e

(second-largest source of Dell Technologies emissions)



3,748,600 MTCO₂e is equivalent to burning all the coal from a 208-mile long train.¹

SCOPE 3: CATEGORY 3

Supply chain activities related to fuel and energy

131,700 MTCO₂e



131,700 MTCO₂e is equivalent to the CO₂ emissions from 5,383,858 propane cylinders used for home barbecues²

SCOPE 3: CATEGORY 4

Logistics

763,400 MTCO₂e



763,400 MTCO₂e is the equivalent of GHG emissions from the average American passenger vehicle driving to the moon and back 4015 times³

EMISSION SOURCES:

Supplier's emissions related to parts creation, manufacturing and assembly

REDUCTION STRATEGY:

Working with suppliers to reduce their carbon-related impacts and accelerate their efforts to engage their own supply chains, driving our goals upstream

EMISSIONS SOURCES:

- Refinement of purchased gasoline or diesel
- Natural gas transport
- Electricity, steam and heating that is consumed (lost) during the transmission and distribution of power

REDUCTION STRATEGY:

Working with suppliers to reduce manufacturing footprint and increase use of renewable energy

EMISSIONS SOURCES:

- Moving materials and products by land, sea or air
- Warehousing products and materials

REDUCTION STRATEGY:

Working with suppliers to identify more efficient use of transport and transition to lower carbon footprint fuels and energy for transport

OPERATING OUR COMPANY

Mix of Direct and Indirect Emissions

SCOPE 1

Direct emissions from Dell Technologies-owned and controlled resources

58,000 MTCO₂e



58,000 MTCO₂e is the equivalent of the CO₂ emissions from the consumption of 6,526,387 gallons of gasoline⁴

EMISSION SOURCES:

- Burning fuels at buildings to operate back-up generators and heating systems
- Burning fuels such as gas and diesel in company vehicles
- Leaks from refrigerants and AC units

REDUCTION STRATEGY:

Decrease or fully eliminate reliance on backup generators where possible, switch to electric vehicles and add on-site renewables like solar

SCOPE 2

Indirect Emissions created on behalf of Dell

240,500 MTCO₂e



240,500 MTCO₂e can be avoided by switching 9,115,194 incandescent lamps to LEDs⁵

EMISSIONS SOURCES:

Purchased electricity, steam, heating and cooling, especially with regards to engineering labs, data centers, manufacturing facilities and office space

REDUCTION STRATEGY:

Increase utilization of renewable sources; increase building energy efficiency through use of things like LED lights, better insulation, and/or advanced HVAC technology

SCOPE 3: CATEGORY 6

Emissions generated from business travel by Dell Technologies employees

314,300 MTCO₂e



314,300 MTCO₂e is the equivalent of 261,917 round trip flights from NYC to LA⁶

EMISSIONS SOURCES:

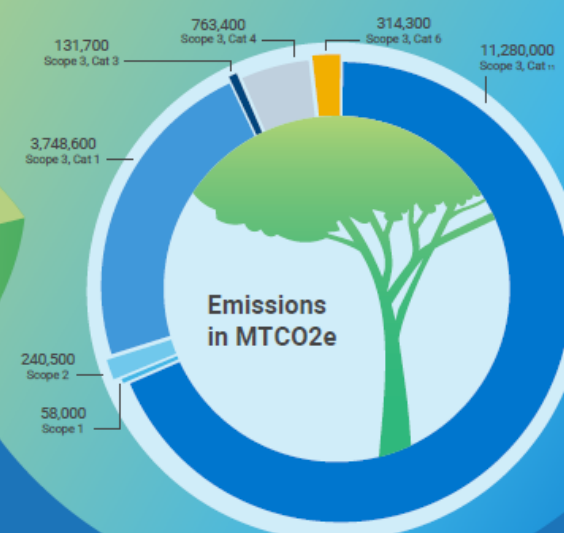
Aircraft, cars and trains operated by 3rd parties that transport employees traveling on behalf of Dell Technologies

REDUCTION STRATEGY:

Reduce the number of in-person meetings, send fewer people to conferences and/or attend fewer out-of-town events

What is a "metric ton of carbon dioxide equivalent"?

Because different greenhouse gases (GHG) don't have the same level of impact, scientists have standardized the unit measurement (abbreviated as MTCO₂e) based on the global warming potential of a metric ton of CO₂. Using just eight tanks of gas in an average car will generate emissions equal to one MTCO₂e.



USING OUR PRODUCTS

Indirect Emissions

SCOPE 3: CATEGORY 11

Use of sold products

11,280,000 MTCO₂e

(largest source of Dell Technologies emissions)



11,280,000 MTCO₂e can be avoided by running 2347 wind turbines for a year⁷

EMISSION SOURCES:

Customer use of all the products in Dell Technologies' portfolio

REDUCTION STRATEGY:

Improve product energy efficiency and utilization, reduce need for extra cooling in the data center and explore the role IT services can play

CHECKPOINTS TO 2050

Our first step is to cut 2020's Scopes 1 and 2 emissions by 50% by 2030. This goal, approved by the Science Based Targets initiative (SBTi), is consistent with the reductions required to keep warming to 1.5°C, the most ambitious goal of the Paris Agreement. Our Scope 3 target, to work with our suppliers to reduce supply chain GHG emissions by 60% per unit of revenue, was deemed consistent with reductions required to stay well below the Agreement's 2°C target. We also have a goal to reach 100% renewables by 2040.

¹ <https://www.bmf.com/shipping-with-bmf/ways-of-shipping/equipment/coal-cars.html> ² <https://www.epa.gov/energy/greenhouse-gas-equivalency-calculator> ³ <https://www.theguardian.com/environment/interactive/2019/jul/19/what-co2-equivalency-calculator-telling-one-flight-smiles-as-much-as-many-people-do-in-a-year> ⁴ <https://www.reference.com/world-view/many-gallons-gas-car-hold-e8371877b738b83e2>

CONSTRUCTION USERS ROUNDTABLE MEETING NOV 9 (B) FLORIDA

The Star of the Show . . . No, Not Hugh Jackman

Dave Cox, President, National Insulation Association and

Michelle M. Jones, Executive Vice president/CEO, National Insulation Association

We all know them. Quiet, unassuming people who remain out of the spotlight, yet dependable, effective, confident, and successful. We're taking this analogy and applying it to the systems of the built environment. No spotlight grabber, but truly the star of the show - efficient, reliable, smart, and if protected/properly maintained, will improve efficiency, save money, provide safety, and reduce your carbon footprint! Join us for a discussion that will showcase the sustainability aspect of the mechanical insulation system.

Owners: Air Products, Duke Energy, ExxonMobil, GM, Google, Johnson and Johnson, Nucor, Merck, Microsoft, P & G, Southern Company, TVA, U.S. Architect of the Capitol, U.S. Army Corp of Engineers

Contractors: Bechtel, Black & Veatch, BrandSafway, Brock, Fluor, Holder, Jacobs, KBR, Kiewit, Kokosing, McDermott, PCL, Turner, Zachry Industrial

CALCULATE YOUR SAVINGS

- Understand EPA website to show on quotes: GHG savings and offsets

www.epa.gov/energy/greenhouse-gas-equivalencies-calculator