

REACHING CLIMATE GOALS WITH NATURAL GAS AND LNG

Through bold steps and technological innovation, natural gas and LNG are working to enable a clean energy future for all.
THIS IS WHAT THE PATH FORWARD LOOKS LIKE, DECADE BY DECADE.

THE 2020s



PLEDGING TO LIMIT EMISSIONS.

ConocoPhillips targets **35-45% reduction** in operated GHG emissions intensity **by 2030**.¹

Equinor's global operation aims to be **carbon neutral by 2030**² and **near zero methane intensity by 2030**.³

ExxonMobil plans to **reduce operated upstream emissions by 30%** as well as flaring and methane emissions by **40-50% by 2025**.⁴

bp **targets 30-35%** reduction in operated GHG emissions on an absolute basis **by 2030**.⁵

Chevron targets a **26% reduction** in emissions intensity of upstream production **by 2028**.

Shell targets **20% reduction** in carbon intensity **by 2030**.



PLEDGING TO ELIMINATE ROUTINE FLARING.

NGSA members have pledged to **eliminate routine flaring, as defined by the World Bank**,⁶ **by 2030**.^{7,8,9,10,11}

bp aims for **zero routine flaring** in US onshore operations **by 2025**.¹²

ConocoPhillips has an ambition to **reach zero routine flaring by 2025**.



IMPROVING OUR ABILITY TO RESPOND TO AND REDUCE EMISSIONS WITH DRONES, INFRARED CAMERAS AND REAL-TIME MONITORING.^{13,14,15}

Shell expands drone use to enhance their existing **methane leak detection and repair** program.¹⁶

ExxonMobil expands the use of aerial LiDARTM imaging¹⁷ and SOOFIE¹⁸ fixed continuous **methane detection technologies**.

bp aims to **install methane measurement** at all existing major oil and gas processing sites globally **by 2023**.¹⁹



INVESTING BILLIONS IN RENEWABLE TECHNOLOGIES AND LOW-CARBON SOLUTIONS.

bp invested **\$750 million in 2020²⁰** and aims to increase its **annual low-carbon investment** to around **\$5 billion per year by 2030.²¹**

Equinor commits to increasing its share of gross capital **expenditures for renewables and low-carbon solutions** to more than **50% by 2030.²²**



INCREASING RESEARCH INTO AND BEGINNING TO UTILIZE CARBON CAPTURE USE AND SEQUESTRATION TECHNOLOGIES.

Equinor's ambition is **5 to 10 million tons of CO₂ storage** per year **by 2030.**

Carbon injection and storage began in 2019 at Chevron's Gorgon Project.²³



CARBON NEUTRAL LNG CARGOES HIT THE MARKET.²⁴



ESG-BASED CERTIFICATION PROGRAMS FOR NATURAL GAS BEGIN.

ExxonMobil pursues **certification of natural gas in the Permian Basin** and evaluates potential expansion to other areas.²⁵



THE 2030s



ONGOING INVESTMENTS IN RENEWABLES AND LOW-CARBON SOLUTIONS REAP REWARDS.

Shell expects to provide enough **renewable electricity for 50 million homes and reduce its carbon intensity by 45%.²⁶**

Through Chevron's partnership with the Getting to Zero Coalition, commercially viable **deep-sea zero-emissions vessels** are expected to be in operation.²⁷

bp aims to grow its net renewable generating capacity from **2.5GW in 2019** to **20GW by 2025** and to around **50GW by 2030.²⁸**



CCUS TECH TAKES HOLD AND HELPS REDUCE U.S. EMISSIONS.

ExxonMobil's CCUS Hub in Houston expects to capture and store **100MMT of CO₂ a year by 2040.**²⁹

Shell is seeking access to an additional **25 million tonnes/year of CCS capacity by 2035**—equal to 25 CCS facilities.³⁰



THE 2040s



EFFICIENCY AND EMISSIONS INTENSITY REDUCTIONS IN OIL AND NATURAL GAS ARE EXPECTED TO SUPPORT A NEARLY 45% DECLINE IN CARBON INTENSITY OF THE GLOBAL ECONOMY.³¹



CREATING HYDROGEN FROM NATURAL GAS HELPS DECARBONIZE ENERGY-INTENSIVE INDUSTRIES.³²

bp expects **hydrogen** to have more than a **15% share** in total global energy consumption **by 2050.**³³

Equinor's ambition is to have **3-5 major industrial H₂ clusters** developed worldwide **by 2035.**



REDUCTIONS IN GHG EMISSIONS AND CARBON INTENSITY HELP THE WORLD ACHIEVE A CLEANER FUTURE.

bp pledges to **cut the carbon intensity** of its products by **50% by 2050**—and its scope 1, 2 and 3 emissions to be at **net-zero by 2050 or sooner.**³⁴

ConocoPhillips sets an ambition to become a **net-zero company for operational emissions by 2050.**³⁵

Equinor continues commitment to become a **net-zero energy company by 2050**—a net carbon intensity **reduction of 100%.**³⁶

Shell aims to **reduce its carbon intensity by 100% by 2050.**



DESTINATION: 2050

AMBITION OF NET ZERO EMISSIONS. ^{37,38,39,40,41,42}



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ConocoPhillips Adopts Paris-Aligned Climate Risk Framework to Meet Net-Zero Operational Emissions Ambition by 2050 | ConocoPhillips

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35. Member company commitments.

BP: Our ambition is to be a net zero company by 2050 or sooner and to help the world get to net zero. We have set out 10 aims to support this ambition. <https://www.bp.com/en/global/corporate/who-we-are/our-ambition/our-aims.html>

Chevron: “Our approach is designed to facilitate carbon accounting that not only reduces our own emissions, but also sets a framework that facilitates the possibility of achieving global net zero as efficiently and effectively as possible, and at least cost to society. Achieving these metrics is directly tied to the compensation of our executives and most of our employees worldwide. <https://www.chevron.com/-/media/chevron/sustainability/documents/chevron-supports-well-designed-emissions-reduction-metrics.pdf>

ConocoPhillips: In 2020 we developed a climate risk strategy that sets an ambition to reduce our operational greenhouse gas (GHG) emissions to net-zero by 2050. We also substantially revised our target to reduce our GHG emissions intensity by 35 to 45% by 2030 compared to our previous target of 5 to 15%. In addition, we endorsed the World Bank Zero Routine Flaring by 2030 initiative with an aim to achieve it by 2025 and set a target to reduce methane emissions intensity to 2.7 kilograms methane CO₂e/BOE (equivalent to 0.23 percent of natural gas produced) by 2025. These targets inform internal climate goals at the business level and support innovation on efficiency and emissions reduction, GHG regulatory risk mitigation and climate-related risk management throughout the lifecycle of our assets. <https://www.conocophillips.com/sustainability/managing-climate-related-risks/metrics-targets/ghg-target/>

Equinor: Equinor today announces its ambition to become a net-zero energy company by 2050. The ambition includes emissions from production and final consumption of energy. It sets a clear strategic direction and demonstrates Equinor’s continued commitment to long-term value creation in support of the Paris Agreement. <https://www.equinor.com/en/news/20201102-emissions.html>

ExxonMobil: Partnered with governments, academia, and industry to research and commercialize biofuels, direct air capture, and lower the cost of carbon capture and storage to help support society’s ambition of net-zero emissions by 2050. <https://corporate.exxonmobil.com/Sustainability/Emissions-and-climate>

Shell set out details of how it will achieve its target to be a net-zero emissions energy business by 2050, in step with society’s progress [Shell] “will continue with short-term targets that will drive down carbon emissions as we make progress towards our 2050 target This includes a new set of targets to reduce our net carbon intensity: 6-8% by 2023, 20% by 2030, 45% by 2035 and 100% by 2050, using a baseline of 2016.”