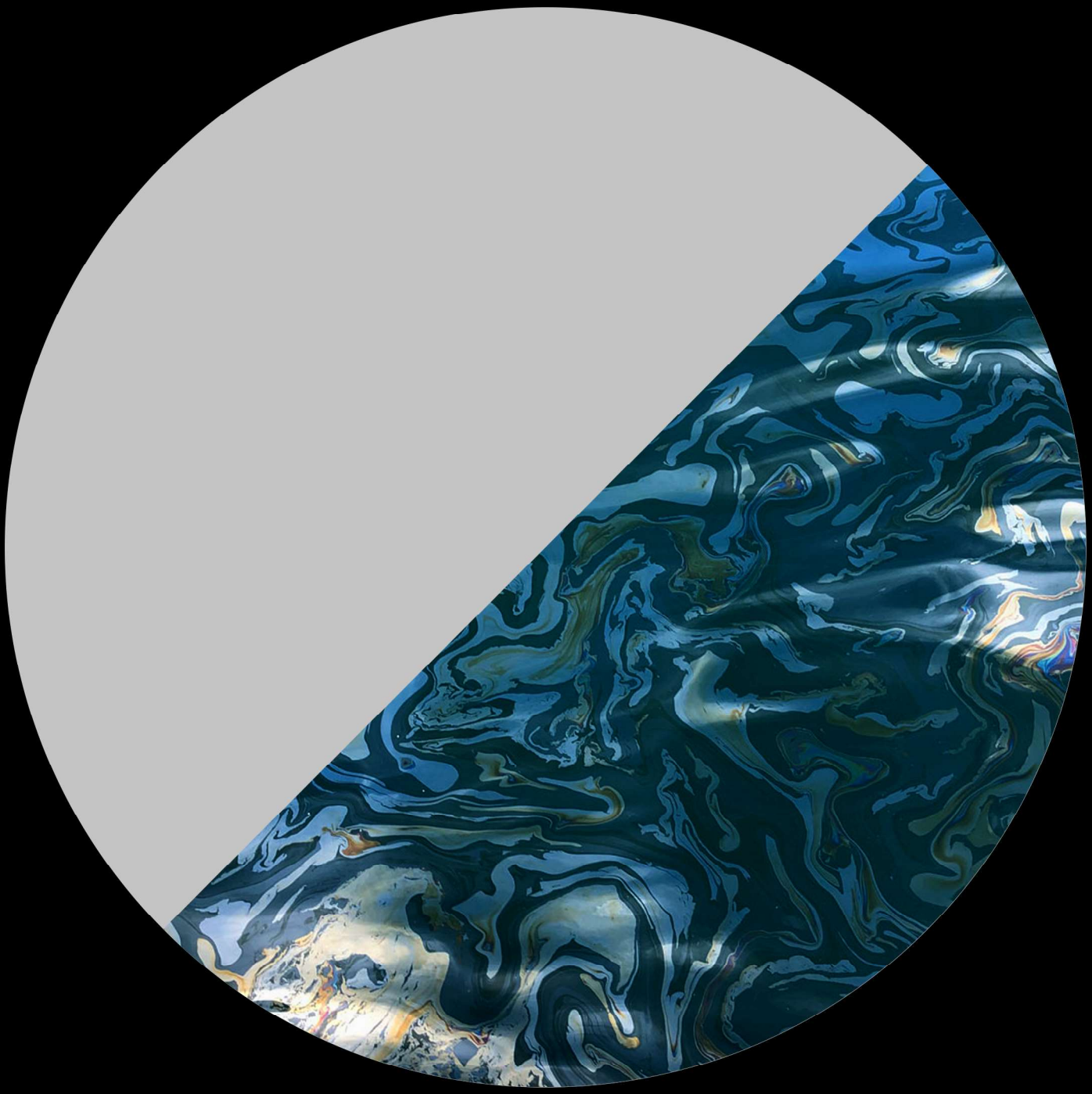
Oil and Gas Sector: 2022 Climate Transition

May 2022



Global Climate Insights

Powered by ACCR

Oil and Gas Sector: 2022 Climate Transition

5 May 2022 | 2022 AGM

Global Climate Insights

Climate is front and centre in this AGM season

In this note we analyse the climate transition plans of major oil and gas stocks we currently cover (BP and Shell) alongside a diverse set of peers (ExxonMobil, Equinor and TotalEnergies). Heading into the 2022 AGM season, all but ExxonMobil (Exxon) have put forward their climate transition plans for a shareholder vote (Say on Climate - SOC style vote). We assess the success of companies in shifting away from hydrocarbons between FY19-21, and compare their current climate plans.

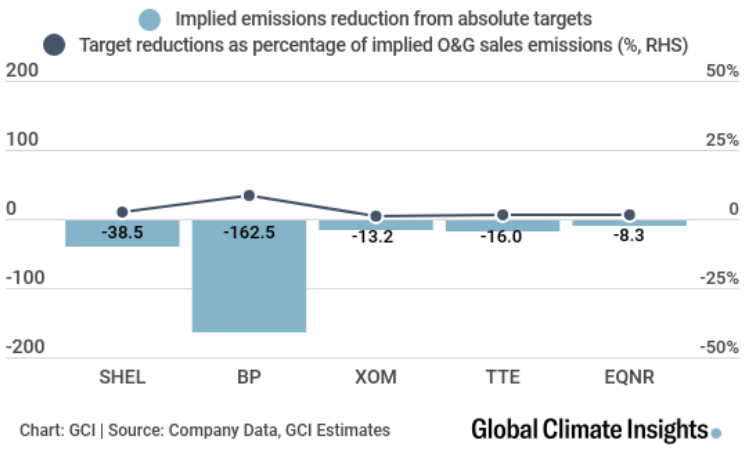
Who has the best climate transition plan? Critically, none have addressed ongoing emissions. Exxon overall clear laggard - disclosures, targets, strategy, climate links with remuneration.

Reducing absolute emissions is a step towards preserving long-term shareholder value in an increasingly disruptive transition. All companies we reviewed have an absolute emission target for scope 1 and 2. Only BP addresses scope 3 with a clear target,but divestment is its primary driver of reduction, which will not contribute to global decarbonisation. The chart below shows the reduction in emissions implied by absolute targets between FY19-30. The low percentage of implied emissions reduction (<10%) risks the likelihood of achieving meaningful decarbonisation across a company's portfolio: any increase in the rest (90%) of its scope 3 absolute emissions will likely outweigh the targeted decrease. Exxon remains the clear laggard, even with its new climate-progressive board members.

Has there been progress? There is no material progress across the sector on linking climate with business strategy: investing surplus cash profits for transition, and remuneration to emissions.

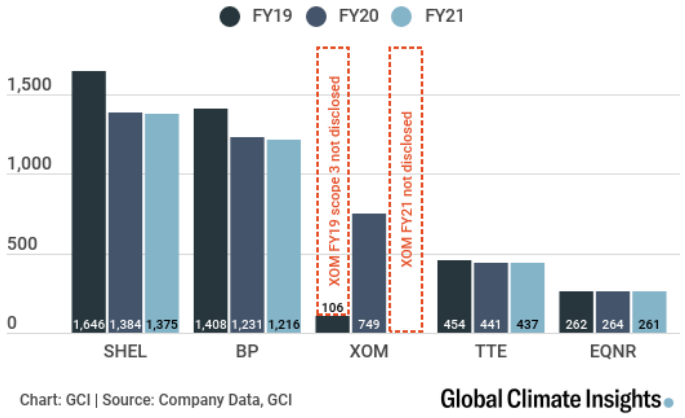
As of today, none of the companies' performances are Paris-aligned. There is no indication that, outside of the effects of COVID-19, any company has reduced their absolute emissions, which were flat across peers in FY21. Climate transition plans remain too high level and detached from business fundamentals. Companies are adding, but not displacing, hydrocarbon products with renewable alternatives.

Chart: FY19-FY30 emission reduction from absolute targets (LHS, Mt CO_2e), % of implied sold oil and gas (O&G) emissions (RHS)



Reported emissions

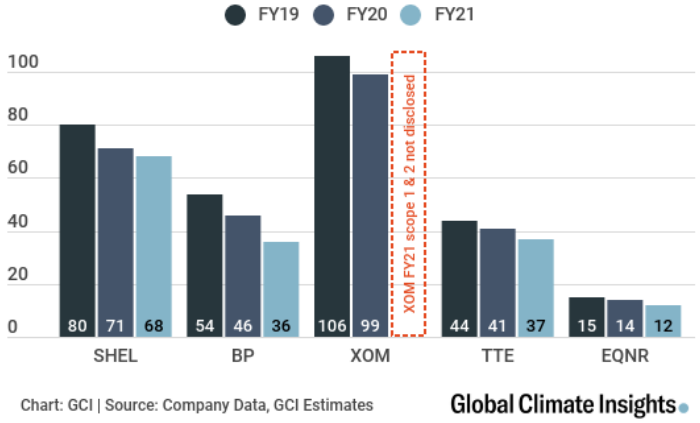
Chart: Scope 1 and 2 (operational), disclosed scope 3 GHG emissions, Mt CO_2e



Exxon has large gaps in its emissions disclosure, not yet reporting FY21 and incomplete disclosure for scope 3 in FY20

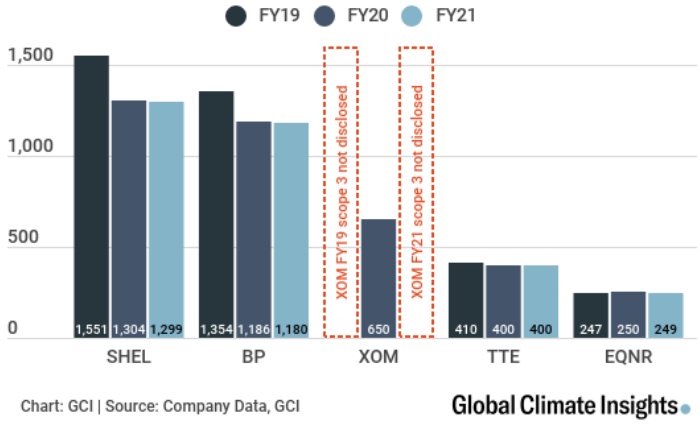
Across the five companies absolute emissions were flat in FY21 (estimated for Exxon)

Chart: Scope 1 and 2 GHG emissions (operational), Mt CO_2e



Exxon's larger scope 1 and 2 is reflective of its higher production of oil and gas (10% higher than next peer in FY20) and higher carbon intensity (26 t CO_2e/boed vs its next peer Shell 21 t CO_2e/boed, see page 7)

Chart: Scope 3 GHG emissions, Mt CO_2e

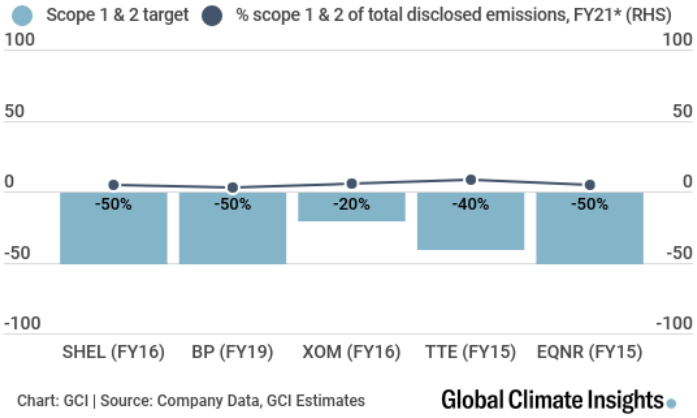


Although Shell reports the highest scope 3 emissions, we believe this is reflective of its methodology, using products sales (including third-party), the largest boundary for scope 3

Scope 3 from *sales* is required to assess exposure and influence over emissions

Emission reduction targets

Chart: Absolute scope 1 and 2 targets FY30 (%)

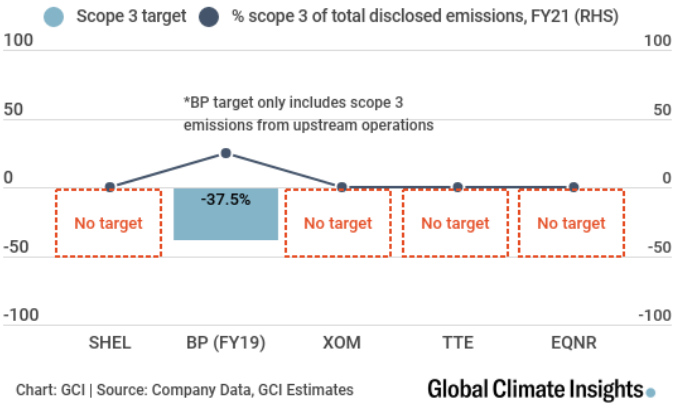


All companies have set absolute targets for scope 1 and 2 reduction

Exxon shows the least ambition, aiming to reduce scope 1 and 2 emissions by 20%, less than half of Shell, BP and Equinor

Note, Exxon emissions are based on FY20 as FY21 has not yet been disclosed

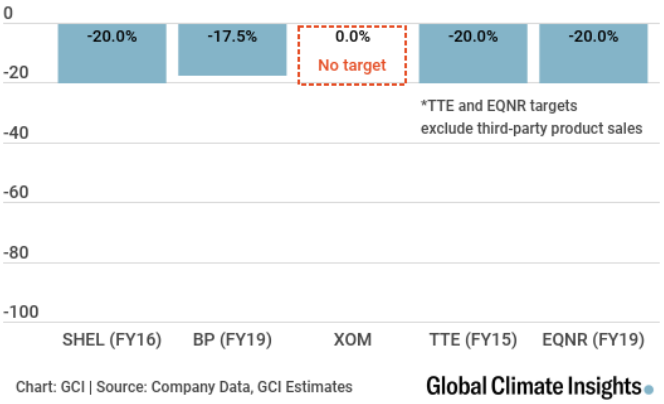
Chart: Absolute scope 3 targets FY30 (%)



BP is the only company to have set clear absolute scope 3 targets, although they are predominantly driven by divestment which will not provide real world emissions reduction

We have excluded TotalEnergies' aspiration from our charts and analysis given there is no quantifiable emissions reduction between FY21 and FY30.

Chart: Intensity target lifecycle emissions FY30 (%)

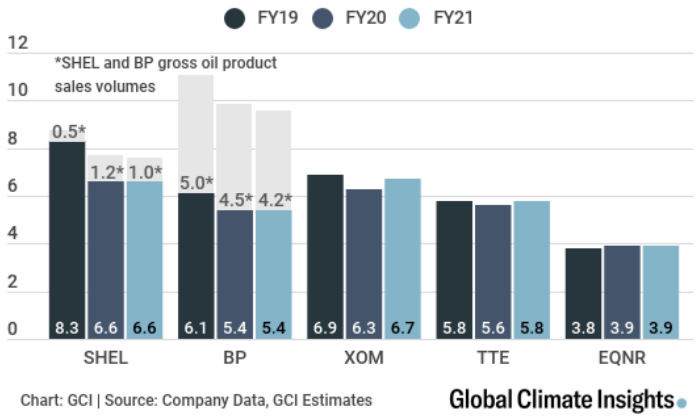


Exxon has not set a target for lifecycle emissions intensity for FY30; BP has set a range for its reduction in lifecycle emissions of between 15-20%

Only Shell and BP have intensity targets that include third-party products

Oil and gas volumes

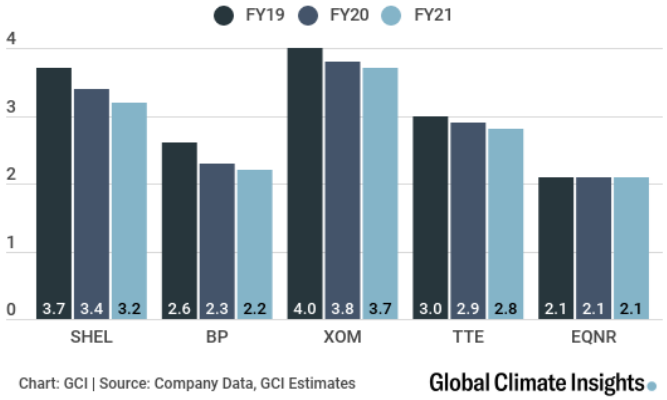
Chart: Oil and gas sales (million boe/d FY19-FY21)[1]



To align with Paris, companies have to transition their products from hydrocarbons to renewable alternatives

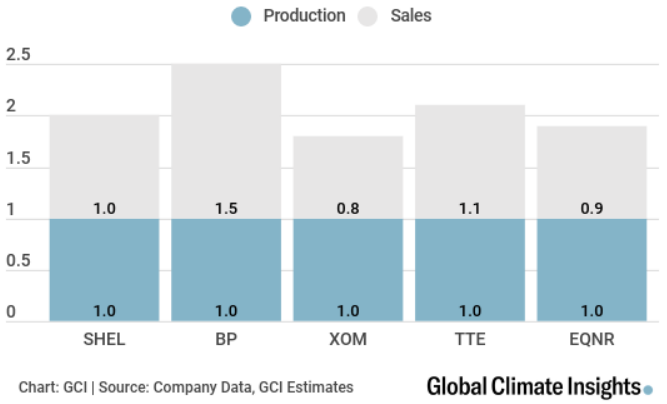
We believe that volumes included in annual accounts may not accurately reflect all physically traded oil and gas. To estimate total oil and gas sales for BP and Shell we have added back previously netted transactions. A similar exercise is likely needed for most other oil majors to understand total oil and gas sales.

Chart: Oil and gas production (million boe/d FY19-21)



Exxon had the highest production of oil and gas between FY19 and FY21, reflective of its market position

Chart: Proportion of oil and gas production to sales FY21



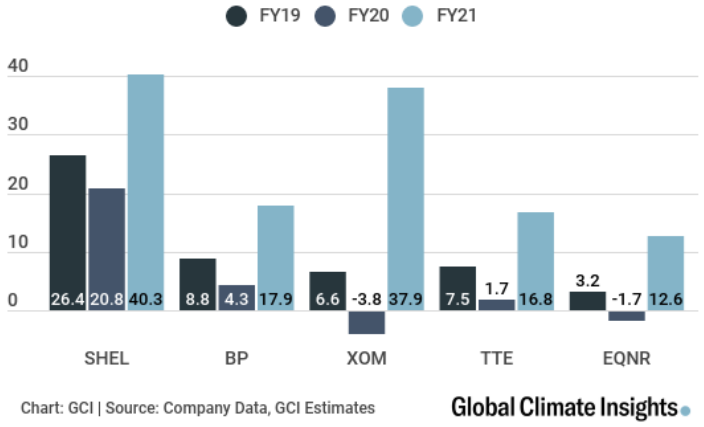
Based on net oil and gas sales disclosed by companies, BP has the highest ratio of sales of own products to third party: for every barrel of BP's own product sold it sells 1.5 barrels of third party product

Exxon predominately sells its own products: for every barrel of its own product sold it sells 0.8 barrels of third party product

[1] BP and Shell's sales are estimated from its gross sales of oil and gas.

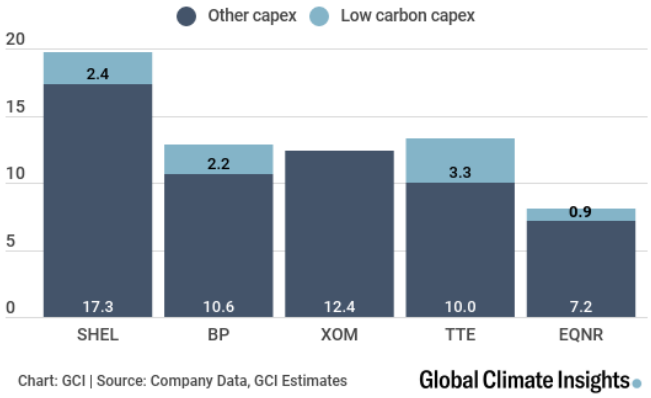
Investment

Chart: Free cash flow ($USbn, FY19-21)



FY21 free cash flow increased significantly across all companies given high oil and gas prices, particularly for Shell $40.3bn and Exxon $37.9bn

Chart: Capital expenditure (US$bn, organic & inorganic, FY21)[2]

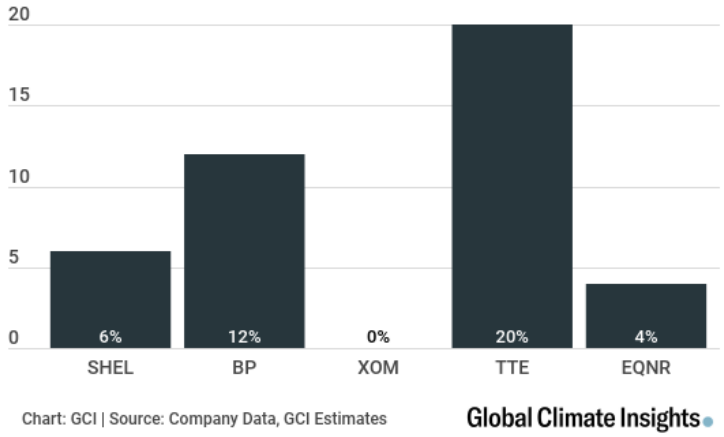


In FY21 TotalEnergies has invested the most in transition. The majority of this appears to have been driven by its ~$2.5bn purchase of a stake in Adani Green

Equinor discloses only organic low-carbon capex

Increases in operating expenditure for transition will also be key going forward as companies build new distribution for electrification

Chart: Low carbon capex to free cash flow (US$bn, FY21)



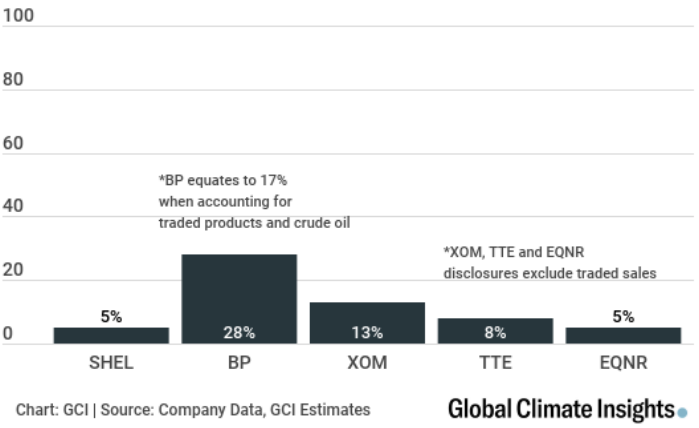
In FY21 TotalEnergies invested the largest percentage of its free cash flow in transition at 20%, followed by BP 12% and Shell 6%

Exxon does not disclose FY21 investment in low-carbon

[2] Equinor reflects organic capex only. Share of total capex (organic and inorganic) is not disclosed.

Missing pieces

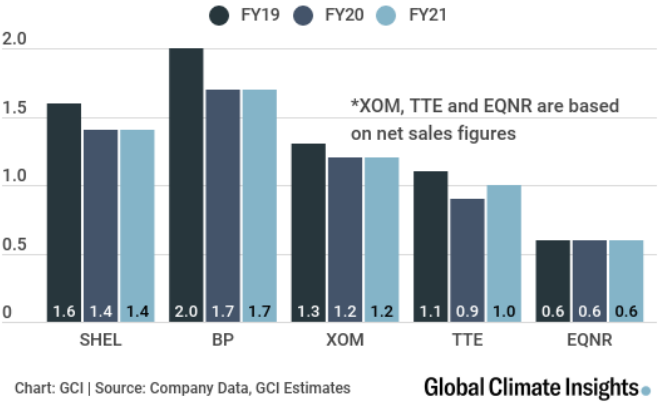
Chart: Disclosed emissions covered by absolute target (FY21)



We have excluded TotalEnergies' scope 3 objective for emissions as it has not quantified emission reduction from FY21

Note, Exxon's emissions are based on FY20 as FY21 has not yet been disclosed

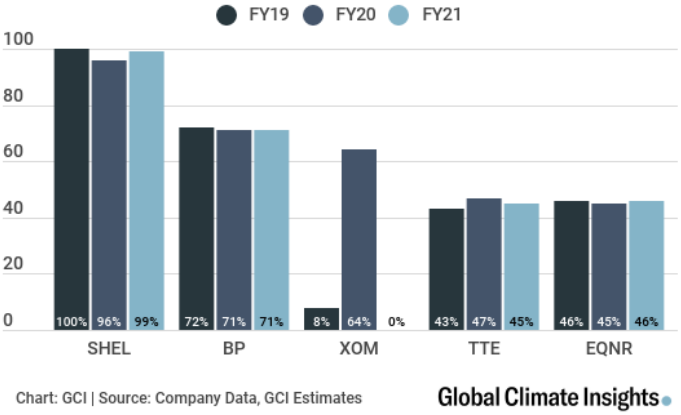
Chart: Implied emissions from oil and gas products sold (Gt CO_2e, US Environmental Protection Agency intensities)



To quantify the gap in current emissions reporting we have calculated the implied emissions from net oil and gas sales for Exxon, TotalEnergies and Equinor, and gross sales for BP and Shell. We use EPA intensities as a standardised factor

Gross volumes are likely to be closer to actual oil and gas sales (including physically traded) than net volumes. Indicating that Exxon, TotalEnergies and Equinor may be underreporting emissions

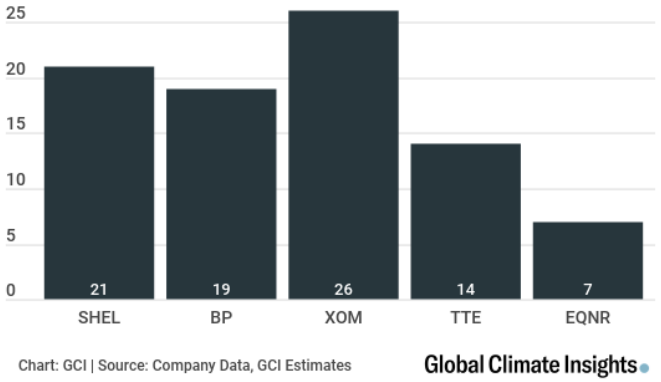
Chart: Disclosed emissions as a percentage of implied emissions from oil and gas products sold



This analysis shows that when comparing disclosed emissions to implied oil and gas emissions, Shell appears to be disclosing the most at ~99%. TotalEnergies and Equinor are lowest at ~45% to 46%

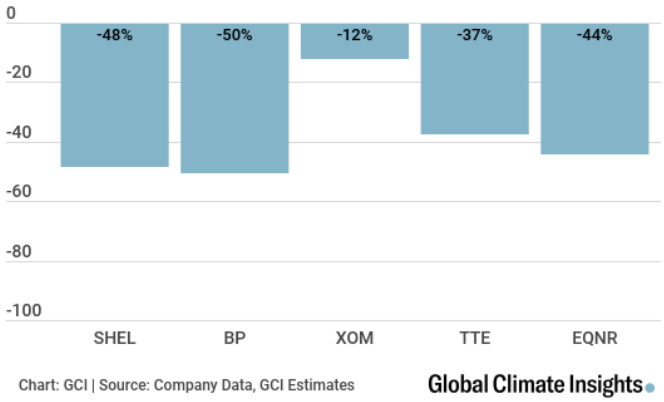
A closer look at emissions

Chart: FY20 Implied scope 1 and 2 intensity oil and gas produced (t CO_2e/boed)



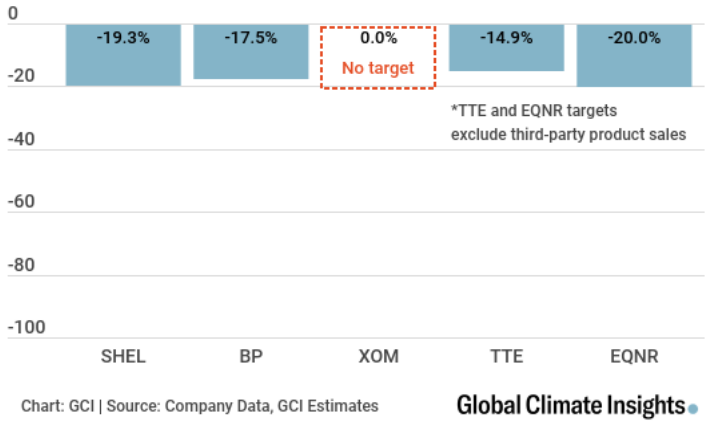
Comparing carbon intensity to oil and gas produced shows Exxon as the most carbon intensive producer at 26 t CO_2e/boed, with Equinor appearing the most efficient

Chart: Absolute scope 1 and 2 targets FY30 - rebased to FY19



Companies set targets against different base years; for comparability we have re-based targets to FY19. This shows Exxon's target is even less ambitious than it appears, decreasing from 20% to 12%. BP's target is highest, but broadly in line with Shell

Chart: Scope 3 intensity targets FY30 - rebased to FY19



Rebased scope 3 intensity targets appear most ambitious for Shell (which also covers all third-party products sold). While Equinor is aiming for a 20% reduction this relates only to its own production

Company transition plan: Shell Plc.

AGM date: 24 May 2022 **Climate transition plan:** Energy Transition Progress Report 2021 **SOC vote**: Yes

Absolute emissions reduction FY30

FY30 Targets			Implied emission reduction from absolute targets FY19-30		
Scope 1 and 2	**Scope 3 own production**	**Scope 3 products sold**	**Mt CO_2e**	**GCI estimated emissions from sold oil and gas FY19**	**Implied reduction/ sold oil and gas emissions**
Yes (operational)	No	No	38.5	1,650 Mt CO_2e	2.3%

Source: Company data, Global Climate Insights estimates

Guidance on absolute emissions reduction:

"We believe total carbon emissions from energy sold peaked in 2018 at around 1.7 gigatonnes CO_2e per annum (Gt p.a.) and will be brought down to net zero by 2050".[3]

Stated emission reduction targets

Emissions scope	Target type	Base Year: FY16	FY21A	FY30 Target	FY50 Target
Operational	Absolute emissions (scope 1 and 2)	83 Mt CO_2e	68 Mt CO_2e	41.5 Mt CO_2e	0
		% on base year	-18%	-50%	-100%
Sold products	Carbon intensity (scope 1,2,3)	79 gCO_2/MJ	77 gCO_2/MJ	63.2 gCO_2/MJ	0
		% on base year	-2.2%	-20%	-100%

Source: Company data, Global Climate Insights estimates

Capital expenditure (organic and inorganic)

Low carbon business definition	Low-Carbon Capex FY21	Low Carbon Capex guidance
Renewables and Energy Solutions: EV charging, low carbon fuels (SAF, biodiesel, renewable gas), renewables, energy solutions.	12% of group, US$2.4bn Renewables and Energy Solutions	FY22: Capex from Renewables and Energy Solutions ~$3bn and Marketing $5-6bn capex (~34% of group). By FY25, 50% of total spend (capex and opex) will go to energy transition.

Source: Company data, Global Climate Insights estimates

Climate strategy

Primary Drivers	Secondary drivers
• Offsets 120 Mt p.a. by 2030 • Carbon Capture and Storage 25 Mt p.a. by 2035 • Growth in gas	• Divestments (includes refineries) • Growth in hydrogen • Doubling electricity sold to 560 TWh

Source: Company data, Global Climate Insights estimates

[3] Shell (released 2022) Energy Transition Progress Report, p. 11.

Drivers of change in emissions FY21

Scope 1 and 2: reduced power for gas compression (QGC Australia), portfolio changes (sale of Martinez and Puget refineries in the US), transformation of Bukom refinery in Singapore to a low-carbon energy and chemical park. [4]

Key climate transition data

	FY19A	FY20A	FY21A
Disclosed emissions (Mt CO_2e)			
Scope 1 and 2 (operational)	80	71	68
Scope 1 and 2 (equity)	105	98	Not disclosed
Scope 3 (own production)	564	452	380
Scope 3 (third-party sales)	886	749	777
Scope 3 (other)	102	103	142
Disclosed emissions[5]	1,632	1,375	1,367
% change (year on year)	-4.9%	-15.9%	-0.7%
% change - scope 1 and 2	-2.4%	-11%	-4%
% change - scope 3	-5.3%	-16%	-1%
Carbon intensity (gCO_2/MJ) energy delivered, Net Carbon Intensity (NCI)	78	75	77[6]
% change (year on year)	-1.3%	-3.8%	+2.7%
Offsets disclosed	2.2Mt in NCI (0.5Mt other)	3.9Mt in NCI (0.4Mt other)	5.1Mt in NCI (1.3Mt other)
Capital expenditure for Low carbon (organic and inorganic)			
Capex ($US m)	23,919	17,827	19,698
Low-carbon capex ($US m)	Not disclosed	900	2,400
% of group capex	Not disclosed	5.0%	12.2%

Source: Company data, Global Climate Insights estimates

[4] Shell (released 2022) Energy Transition Progress Report, p. 10
[5] Total emissions differ slightly to the emissions included in Shell's Net Carbon Intensity
[6] FY21 increase driven by a change in methodology

Remuneration

Incentives linked to climate transition	Remuneration tied to stated emission reduction targets	2021 alignment of climate transition and remuneration
2022: ● Annual bonus scorecard: 15% ● LTIP: 20%	2022: ● Annual bonus: 5% (scope 1 and 2 target) ● LTIP: ~5%, net carbon intensity reduction of 2020-2022 3-4% from 2016[7]	Some alignment. Low ambition. ● Annual bonus (2021): 15% weighting (including 5% for a minor 0.24% reduction in scope 1 and 2 emissions). ● LTIP (2019-2021): Included a 10% weighting for four energy transition activities (including a Net Carbon Intensity reduction). All were assessed as met. Shares were awarded despite three financial hurdles not being achieved.

Source: Company data, Global Climate Insights estimates

Lobbying

2021 misaligned industry associations	2022 action taken on misalignment	InfluenceMap score
● Assessed 36 organisations ● 8 organisations identified as misaligned (material misalignment Queensland Resources Council, QRC)	● Remained members of all associations. ● QRC has released an updated Energy and Climate Policy in March 2022 and QRC has confirmed it will advocate in line with this policy. ● Increase engagement with the Texas Oil & Gas Association. ● Monitoring other associations.	Performance band: C-

Source: Company data, Global Climate Insights estimates

Company guidance

Fuel	FY20A	FY21A	FY30 target	FY21-FY20 change	Progress
Renewables delivered (GW)	0.96	1.2	~70 GW (>50m household equivalent)	24%	In line (41.5 GW in pipeline)
Power delivered (TWh)	251	251	560	No change	Under
Bioenergy production (kb/d)	1.1b litres (19kb/d)	1.1b litres (19 kb/d)	~8.8 litres (150 kb/d, 8x more low-carbon fuels)	No change	Under
"Clean" hydrogen (renewables & gas with CCUS) production	Not disclosed	2 MW electrolyser capacity	10% market share by 2035	No guidance	Not able to assess
Oil production (kboe/d)	1,803	1,739	1-2% p.a. decline in oil production	-3.5%	In line
Gas production (kboe/d)	1,583	1,498	55% of hydrocarbon production from gas / +7 Mt p.a. LNG capacity	-5.4%	Unclear
Refining throughput (kb/d)	1,875	1,496	Reduced production of traditional fuels by 55% (~55Mt p.a)	-20.2%	In line
Third-party oil and gas sales (kboe/d)	3,173	3,349	No guidance	5.5%	N/A

Source: Company data, Global Climate Insights estimates

[7] A net carbon intensity target is one of four targets considered as part of the 20% allocation for energy transition.

Company transition plan: BP Plc.

AGM date: 12 May 2022 **Climate transition plan:** "Net Zero - from ambition to action" report **SOC vote:** Yes

Absolute emissions reduction FY30

FY30 Targets			Implied emission reduction from absolute targets FY19-30		
Scope 1 and 2	**Scope 3 own production**	**Scope 3 products sold**	**Mt CO_2e**	**GCI estimated emissions from sold oil and gas FY19**	**Implied reduction/ sold oil and gas emissions**
Yes (operational)	Yes	No	~162.5	1,958 Mt CO_2e	8.3% (driven by divestment)

Source: Company data, Global Climate Insights estimates

Guidance on absolute emissions reduction:

"We anticipate that the absolute level of emissions associated with our marketed products will grow up to 2030, even as the carbon intensity covered by aim 3 falls. This is mainly driven by our growth plans in fast-growing markets".[8]

Stated emission reduction targets

Emissions scope	Target type	Base Year: FY19	FY21A	FY30 Target	FY50 Target
Operational	Absolute (scope 1 & 2)	54.4 Mt CO_2e	35.6 Mt CO_2e	27 Mt CO_2e	0
		% on base year	-34.6%	-50%	-100%
Operational	Absolute (scope 3)[9]	361 Mt CO_2e	304 Mt CO_2e	217-235 Mt CO_2e	0
		% on base year	-16%	-(35%-40%)	-100%
Sold products	Carbon intensity (scope 1,2,3)	79 gCO_2/MJ	79 gCO_2/MJ	63-67 gCO_2/MJ	0
		% on base year	-0.4%	-(15%-20%)	-100%

Source: Company data, Global Climate Insights estimates

Capital expenditure (organic and inorganic)

Low carbon business definition	Low-Carbon Capex FY21	Low Carbon Capex guidance
Bioenergy, electrification, future mobility, CCUS, renewables, hydrogen	17%, $2.2bn	50% of capex ($7-8bn p.a.) directed towards transition business (includes convenience) .

Source: Company data, Global Climate Insights estimates

[8] BP (2020), bp sustainability report, p. 31.

[9] Net carbon intensity, estimated on a lifecycle (full value chain) basis from the use, production, and distribution of energy products per unit of energy (MJ) delivered.

Climate strategy

Primary Drivers	Secondary drivers
• Divestment (oil and gas production, refineries) • Renewable electricity generation (50 GW by 2030) • EV charging (>100,000 charge points by 2030) • Fossil energy products expansion in growth markets	• Biofuels (100 kb/d) • Renewable hydrogen production (10% share of core markets)

Source: Company data, Global Climate Insights estimates

Drivers of change in emissions FY21

2021 Scope 1 and 2 Sustainable Emission Reduction was 1.6 $MtCO_2e$ vs 2020. Divestments accounted for 9.3$MtCO_2e$ of the decrease in Scope 1 and 2 emissions. Additional drivers, repurposing the Kwinana refinery. Scope 3 reduced due to divestment and field decline.[10]

Key climate transition data

	FY19A	FY20A	FY21A
Disclosed emissions (Mt CO_2e)			
Scope 1 and 2	54.4	43.5	35.6
Scope 1 and 2 (equity)	51.7	45.5	39.1
Scope 3 (own production)	360.9	327.6	303.6
Scope 3 (marketed emissions[11])	993	858.3	876.5
Disclosed emissions	1,408	1,231	1,216
% change (year on year)	n/a	-12.6%	-1.3%
% change - scope 1 and 2	n/a	-20%	-18.2%
% change - scope 3	n/a	-12.4%	0%
Carbon intensity disclosed (gCO_2/MJ)[12]	79	79	79
% change (year on year)	n/a	-0.5%	+0.6%
Offsets disclosed	Not disclosed or used for emission reduction targets pre FY30		
Capital expenditure for Low carbon (organic and inorganic)			
Capex ($US m)	19,421	14,055	12,848
Low-carbon capex ($US m)	>500	750	2,191[13]
% of group capex	n/a	5.3%	17.0%

Source: Company data, Global Climate Insights estimates

[10] BP (2022) Net Zero report, p. 14.
[11] BP has slightly amended FY19 and FY20 emissions since the release of our BP initiation report. BP has suggested the disclosed emissions are downstream emissions only and should be added to the scope 3 emissions from own production
[12] Carbon intensity of marketed energy products
[13] BP (2021) ESG datasheet, p. 3

Remuneration

Percentage of incentives linked to climate transition	Remuneration tied to emission reduction targets	2021 alignment of climate transition and remuneration
2022: ● Annual bonus: 15% weighting sustainable emissions reduction scope 1 & 2 (excludes divestment). ● Performance shares: weak link to low carbon strategy, ~13.3%	2022: Not clearly linked to emission reduction targets.	Some alignment. No direct link to stated emission reduction targets. ● Annual bonus: 15% weighting sustainable emissions reduction scope 1 & 2 (excludes divestment), 5.6Mt in 2021. Condition met. ● Performance shares: weak link to low carbon strategy, ~7.5%

Source: Company data, Global Climate Insights estimates

Lobbying

2021 misaligned industry associations	2022 action taken on misalignment	InfluenceMap score
● Released 2022 Trade association review ● Associations included: 51 ● No full misalignment reported in 2022 trade association review	None taken	Performance band: C-

Source: Company data, Global Climate Insights estimates

Company guidance

Fuel	FY20A	FY21A	FY30 target	FY21-FY20 change	Progress
Renewables installed (GW)	1.5	1.9	50[14]	+26.7%	Under
Power, electricity traded (TWh)	214	202	500	-5.6%	Under
Bioenergy production (kb/d)	30	26	100	-13.3%	Under
"Clean" hydrogen (renewables & gas with CCUS) production (Mt p.a.)	Not disclosed	Not disclosed	10% clean hydrogen market share in core markets	n/a	Under
Oil production (kboe/d)	1,229	1,091	40% reduction in oil and gas production (1,500 kboe/d)	-11.2%	In line
Gas production (kboe/d)	1,109	1,091		-1.6%	Under
Refining throughput (kb/d)	1,627	1,594	~1,200 (-30% on FY19)	-2%	In line
Third-party oil and gas sales (kboe/d)	3,047	3,225	No target	5.9%	n/a

Source: Company data, Global Climate Insights estimates

[14] Developed renewables to FID

Company transition plan: ExxonMobil Corp.

AGM date: 25 May 2022 **Climate transition plan:** Advancing Climate Solutions 2022 progress report **SOC vote**: No

Absolute emissions reduction FY30

FY30 Targets			Implied emission reduction from absolute targets FY19-30		
Scope 1 and 2	**Scope 3 own production**	**Scope 3 products sold**	**Mt CO_2e**	**GCI estimated emissions from sold oil and gas FY19**	**Implied reduction/ sold oil and gas emissions**
Yes (operational)	No	No	13	1,292 Mt CO_2e	1.8%

Source: Company data, Global Climate Insights estimates

Guidance on absolute emissions reduction:

Compared to 2016 an absolute reduction of scope 1 and 2 emissions of ~20% (this includes a 30% reduction in upstream scope 1 and 2 emissions)

Stated emission reduction targets

Emissions scope	Target type	Base Year: FY16	FY21A	FY30 Target	FY50 Target
Operational	Absolute emissions (scope 1 and 2)	116 Mt CO_2e	Not disclosed	93 Mt CO_2e	zero implied
		% on base year	Not disclosed	20%	100%
Operated assets	Intensity (scope 1 and 2)	Not disclosed	Not disclosed	Not disclosed	0%
		% on base year	Not disclosed	20-30%	100%

Source: Company data, Global Climate Insights estimates

Capital expenditure

Low carbon business definition	Low-Carbon Capex FY21	Low Carbon Capex guidance
Low Carbon Solutions - CCUS, hydrogen, biofuels	Not disclosed	In the next six years (2022-2027) investing $15 bn on initiatives to lower greenhouse gas emissions. Note: Appears to be organic and inorganic.

Source: Company data, Global Climate Insights estimates

Climate strategy

Primary Drivers	Secondary drivers
• CCUS • Operational efficiency	• Hydrogen • Biofuels

Source: Company data, Global Climate Insights estimates

Drivers of change in emissions FY21

Not disclosed, 2020 emissions commentary only.

Key climate transition data

	FY19A	FY20A	FY21A
Disclosed emissions (Mt CO_2e)			
Scope 1 and 2	106	99	Not disclosed
Scope 1 and 2 (equity)	118	111	Not disclosed
Scope 3 (own production)	Not disclosed	650	Not disclosed
Scope 3 (third-party sales)	Not disclosed	Not disclosed	Not disclosed
Disclosed emissions	Not disclosed	749	Not disclosed
% change (year on year)	Not disclosed	Not disclosed	Not disclosed
% change - scope 1 and 2	-3.6%	-7%	Not disclosed
% change - scope 3	Not disclosed	Not disclosed	Not disclosed
Carbon intensity disclosed (gCO_2/MJ)	Not disclosed	Not disclosed	Not disclosed
% change (year on year)	Not disclosed	Not disclosed	Not disclosed
Offsets disclosed	Not disclosed	Not disclosed	Not disclosed
Capital expenditure for Low carbon			
Organic capex ($US m)	24,361	17,282	12,076
Low-carbon capex ($US m)	Not disclosed	Not disclosed	Not disclosed
% of group capex	Not disclosed	Not disclosed	Not disclosed

Source: Company data, Global Climate Insights estimates

Remuneration

Percentage of incentives linked to climate transition	Remuneration tied to emission reduction targets	2021 alignment of climate transition and remuneration
2022 Emissions performance is considered in compensation, no weighting is disclosed.	2022 Unclear; reference but no metrics or weighting provided.	No direct link. Not transparent. Incorporated in overall compensation criteria, no weighting provided. Exxon notes its management team met its GHG emissions objectives that it set in 2020 which were not ambitious and likely impacted by COVID-19.

Source: Company data, Global Climate Insights estimates

Lobbying

2021 misaligned industry associations	2022 action taken on misalignment	InfluenceMap score
American Fuel and Petrochemical Manufacturers (AFPM) Independent Petroleum Association of America (IPAA)	None yet disclosed	Performance band: D-

Source: Company data, Global Climate Insights estimates

Company guidance					
Fuel	**FY20A**	**FY21A**	**FY30 target**	**FY21-FY20 change**	**Progress**
Renewables installed (GW)	Not disclosed	Not disclosed[15]	No target	n/a	n/a
Power delivered (TWh)	Not disclosed	Not disclosed	No target	n/a	n/a
Bioenergy peak capacity (kb/d)	Not disclosed	100	200	Not disclosed	Not able to assess
"Clean" hydrogen (renewables & gas with CCUS) production (Mt p.a.)	Not disclosed	Not disclosed, total hydrogen 1.3	Not disclosed[16]	Not disclosed	Not able to assess
Oil production (kboe/d)	1,415	1,426	No target	1%	n/a
Gas production (kboe/d)	2,349	2,289	Progressing towards 12 Mt p.a. of LNG	-3%	n/a
Refining throughput (kb/d)	3,773	3,945	No target	5%	n/a
Third-party oil and gas sales (kboe/d)	2,555	2,941	No target, have indicated expansion	15%	n/a

Source: Company data, Global Climate Insights estimates

[15] In 2018, ExxonMobil announced two 12-year agreements with Lincoln Clean Energy for the purchase of 500 MWs of wind and solar electricity.
[16] Exxon is planning to develop 1 billion cubic feet per day of "blue" hydrogen at its proposed Baytown complex expansion.

Company transition plan: TotalEnergies SE

AGM date: 25 May 2022 **Climate transition plan:** Sustainability and Climate report 2022 **SOC vote:** Yes

Absolute emissions reduction FY30

FY30 Targets			Implied emission reduction from absolute targets FY19-30		
Scope 1 and 2	**Scope 3 own production**	**Scope 3 products sold**	**Mt CO_2e**	**GCI estimated emissions from sold oil and gas FY19**	**Implied reduction/ sold oil and gas emissions**
Yes (operational)	Yes	No	16[17]	1,056 Mt CO_2e	2.5%

Source: Company data, Global Climate Insights estimates

Guidance on absolute emissions reduction:

TotalEnergies has set a 2030 target to reduce"global Scope 3 emissions – i.e., those from the energy products used by our customers – to below 2015 levels"[18]. This reflects a ~30% reduction in emissions from oil products offset by growth in LNG and marketing.

Stated emission reduction targets

Emissions scope	Target type	Base Year: FY15	FY21A	FY30 Target	FY50 Target
Operational	Absolute emissions (scope 1 and 2)	46 Mt CO_2e	37 Mt CO_2e	28 Mt CO_2e	10 Mt CO_2e
		% on base year	-20%	-40%	-78.3%
Own production of oil and gas	Absolute (scope 3)[19]	410 Mt CO_2e	400 Mt CO_2e	<400 Mt CO_2e	100 Mt CO_2e
		% on base year	-2.5%	-2.5% (min.)	-76%
Marketed and physically traded energy products	Carbon intensity (lifecycle, own products)	71 g CO_2e/MJ	64 g CO_2e/MJ	<57 g CO_2e/MJ	0
		% on base year	-10%	-20% (min.)	-100%

Source: Company data, Global Climate Insights estimates

Capital expenditure (organic and inorganic)

Low carbon business definition	Low-Carbon Capex FY21	Low Carbon Capex guidance (organic and inorganic)
Renewables and Power	25%[20], $3.3bn	2022-2025 30% ($4.2bn) investment in Renewables, Electricity and low-carbon fuels. Of which $100m p.a. is allocated to offsets and >$100m to CCUS.

Source: Company data, Global Climate Insights estimates

[17] ~16 Mt decrease in scope 1 & 2 (adjusted for COVID-19).
[18] TotalEnergies (2022) Sustainability & Climate 2022 Progress Report, p. 39
[19] We have excluded this target from our charts and analysis given there is no quantifiable emissions reduction between FY21 and FY30. This includes sub-aspirations of: 1) 30% reduction in scope 3 from oil products from 2015 to 2030 (350 Mt 2015) and a 30% reduction from European scope 1,2, 3 (mostly oil products, 256 Mt in 2015). Stated numbers exclude impact from COVID-19 as disclosed.
[20] Includes large acquisition of Adani Green Energy estimated at ~$2.5bn. Estimated at ~6.5% of organic capital expenditure. In FY21 Total spent in FY21 it spent $100m on CCUS and $100m on offsets.

Climate strategy

Primary Drivers	Secondary drivers
• Growth in gas production and sales • Decline in oil sales • Renewables capacity (100 GW by 2030)	• CCUS capacity (>10 Mt p.a. by 2030) • Offsets 5-10Mt p.a. by 2030 • Biofuels production 5Mt p.a. by 2030

Source: Company data, Global Climate Insights estimates

Drivers of change in emissions FY21

"Scope 1+2 emissions decreased from 41.5 Mt in 2020 to 37.0 Mt (excluding the impact of COVID)", assisted by "divestment of the Lindsey refinery in the United Kingdom and the cessation of operations of Grandpuits in France".[21]

Key climate transition data[22]

	FY19A	FY20A	FY21A
Disclosed emissions (Mt CO_2e)			
Scope 1 and 2 (operational)	44	41	37
Scope 1 and 2 (equity)	Not disclosed	Not disclosed	54
Scope 3 (own production)	410	400	400
Scope 3 (third-party sales)	Not disclosed	Not disclosed	Not disclosed
Disclosed emissions	454	441	437
% change (year on year)	Not disclosed	-3%	-1%
% change - scope 1 and 2	Not disclosed	-7%	-10%
% change - scope 3	Not disclosed	-2.5%	0%
Carbon intensity disclosed (gCO_2/MJ) own production only	67	65	64
% change (year on year)	Not disclosed	-2%	-2%
Offsets disclosed	Not disclosed	Not disclosed	7 Mt carbon credits
Capital expenditure for low carbon - organic only			
Organic capex ($USm)	13,397	10,339	12,675
Low-carbon capex ($USm)	Not disclosed	Not disclosed	Est. 827
% of group capex	Not disclosed	Not disclosed	Est. 6.5%

Source: Company data, Global Climate Insights estimates

[21] TotalEnergies (2022) Sustainability & Climate 2022 Progress Report, p. 31

[22] Numbers in table reflect emissions adjusted for impact of COVID-19 in FY20 and FY21

Remuneration

Percentage of incentives linked to climate transition	Remuneration tied to emission reduction targets	2021 alignment of climate transition and remuneration
2022 ● STI: 10% ● LTI: 30%, including: 1) 15% scope 1 & 2[23], not ambitious. 2) 15% scope 3.	2022 ● STI: 10% ● LTI: 30%	Some alignment. Not ambitious. ● STI: 10% weighting, for reducing scope 1 and 2 to 42.4 Mt CO_2e in FY21 - Met. ● LTI: 30% weighting emission reduction targets (Scope 1, 2, 3). Scope 3 target was -12% reduction on FY15.

Source: Company data, Global Climate Insights estimates

Lobbying

2020 misaligned industry associations	2022 action taken on misalignment	InfluenceMap score
American Petroleum Institute (API) Texas Oil & Gas Association	Exited the following:. API (2021), Canadian Association of Petroleum Producers (2020), American Fuel & Petrochemical Manufacturers (2019).	Performance band: C-

Source: Company data, Global Climate Insights estimates

Company guidance

TotalEnergies is targeting a 2030 energy mix of sales that is 50% gas, 30% petroleum products, 15% majority renewable electricity and 5% biomass and hydrogen.

Fuel	FY20A	FY21A	FY30 target	FY21-FY20 change	Direction
Renewables installed (GW)	7	10	100	+43%	In line
Power generated (TWh)	14	21	±120 20 x more electricity on FY15	+50%	In line
Bioenergy - biofuel production Bioenergy - sales (Mt p.a.)	<0.5 <3	0.5 3	5 ~15	0%	Under
"Clean" hydrogen (renewables & gas with CCUS) production	n/a	n/a	No target.	n/a	n/a
Oil production (kboe/d) Oil sales (kboe/d) - own products	1,543 1,478	1,500 1,502	Oil production peaking this decade, decreasing to ~1.4 Mboe/d in 2030. Sale of own oil -30% from 2015 to ~1.4Mboe/d	-2.8% +1.6%	In line
Gas production (kboe/d) LNG sales (Mt p.a.)[24]	1,328 38.3	1,319 42	Increase gas production by 50% on FY15 from 1.3 to 2Mboe/d. Double sales of LNG over the 2019-2030 period to ~69 Mt p.a.	-0.7% +9.7%	Under/ In line
Refining throughput (kb/d)	1,292	1,180	No target.	-8.7%	n/a
Third-party oil and gas sales[25] (kboe/d)	1,932	2,079	No target. Unclear if included in oil sales target.	+7.6%	n/a

Source: Company data, Global Climate Insights estimates

[23] 41.8 Mt CO_2e for 2022 and 41.2 Mt CO_2e for 2023
[24] Incl 3rd party LNG sales
[25] Estimated from company disclosure, including trading and bulk sales

Company transition plan: Equinor ASA

AGM date: 11 May 2022 **Climate transition plan:** Energy transition plan **SOC vote:** Yes

Absolute emissions reduction FY30

FY30 Targets			Implied emission reduction from absolute targets FY19-30		
Scope 1 and 2	**Scope 3 own production**	**Scope 3 products sold**	**Mt CO_2e**	**GCI estimated emissions from sold oil and gas FY19**	**Implied reduction/ sold oil and gas emissions**
Yes (operational)	No	No	6.6	572 Mt CO_2e	1.2%

Source: Company data, Global Climate Insights estimates

Guidance on absolute emissions reduction:

Halving operated scope 1+2 greenhouse gas emissions by FY30 relative to FY15 levels with 90% of the cuts coming from absolute reductions.

Stated emission reduction targets

Emissions scope	Target type	Base Year: FY15	FY21A	FY30 Target	FY50 Target
Operational	Absolute (scope 1 and 2)[26]	14.9 Mt CO_2e	12.1 Mt CO_2e	8.3 Mt CO_2e	n/a
		% on base year	-27%	-50%	n/a
Oil and gas	Carbon intensity (scope 1,2,3)[27]	68 gCO_2e/MJ (FY19)	67 gCO_2e/MJ	54 gCO_2e/MJ	0 gCO_2e/MJ
		% on base year (FY19)	-1%	-20%	-100%

Source: Company data, Global Climate Insights estimates

Capital expenditure (organic only)

Low carbon business definition	Low-Carbon Capex FY21	Low Carbon Capex guidance
Renewables, hydrogen, CCUS	11%	>50% annual gross capex to renewables and low carbon solutions by 2030

Source: Company data, Global Climate Insights estimates

Climate strategy

Primary Drivers	Secondary drivers
• Electrification of offshore assets with renewables • Renewable energy generation • Divestments	• Power (gas with CCUS, hydrogen) • Provider of CCUS capacity

Source: Company data, Global Climate Insights estimates

[26] Equinor uses a FY15 baseline for its scope 1&2 absolute emission reduction target. Its FY30 target is -50% on a 2015 baseline (-44% on a 2019 baseline). 90% of the cuts coming from absolute reductions

[27] Net carbon intensity, defined as: *GHG emissions associated with the production and use of energy produced by Equinor, including negative emissions related to carbon services and offsets, divided by the amount of energy produced by the company.*

Drivers of change in emissions FY21

Divestments, increased production and temporary shutdowns. Divestments included Bakken and Austin chalk (US), Terra Nova (Canada) and Bajo del Toro Este/Aguila More Noreste (Argentina).

Key climate transition data

	FY19A	FY20A	FY21A
Disclosed emissions (Mt CO_2e)			
Scope 1 and 2	14.9	13.6	12.1
Scope 1 and 2 (equity)	Not disclosed	Not disclosed	Not disclosed
Scope 3 (own production)	247	250	249
Scope 3 (third-party sales)	Not disclosed	Not disclosed	Not disclosed
Disclosed emissions	262	264	261
% change (year on year)	Not disclosed	+0.6%	-0.9%
% change - scope 1 and 2	Not disclosed	-8.7%	-11.0%
% change - scope 3	Not disclosed	+1.2%	-0.4%
Carbon intensity disclosed (gCO_2/MJ) own production only	68	68	67
% change (year on year)	Not disclosed	0%	-1.5%
Offsets disclosed	Not disclosed. Not using for emissions reduction targets		
Capital expenditure for Low carbon - organic only			
Organic capex ($US m)	10,204	8,476	8,040
Low-carbon capex ($US m)	175	Est. 339	Est. 885.5
% of group capex	1.2	4	11

Source: Company data, Global Climate Insights estimates

Remuneration

Percentage of incentives linked to climate transition	Remuneration tied to emission reduction targets	2021 alignment of climate transition and remuneration
No disclosure	None KPI for CEO: CO_2 intensity for the upstream portfolio: 8.1 kg CO_2/boe or better.	No disclosure. **This is a material governance gap.**

Source: Company data, Global Climate Insights estimates

Lobbying

2021 misaligned industry associations	2022 action taken on misalignment	InfluenceMap score
No material misalignments. American Petroleum Institute no longer considered misaligned post new climate policy.	Exited Australian Petroleum Production & Exploration Association (APPEA) (2021)	Performance band: C-

Source: Company data, Global Climate Insights estimates

Company guidance

Fuel	FY20A	FY21A	FY30 target	FY21-FY20 change	Progress
Renewables installed (GW)	0.6	0.7	12 to 16 installed	+16.7%	under
Power production (TWh)	1.66	1.56	No target	-6.0%	n/a
Bioenergy - biofuel sales (Mt p.a.)	Not disclosed	Not disclosed	No target	n/a	n/a
"Clean" hydrogen (renewables & gas with CCUS) production	Not disclosed	Not disclosed	10% of European market in 2035	n/a	under
Oil production (kboe/d)	1,120	1,076	Rising to FY26, back to current levels by FY30 Increasing production towards 2026, decreasing to 2021 production level in 2030	-3.9%	In line
Gas production (kboe/d)	950	1,003		+5.6%	In line
Refining throughput (kb/d)[28]	333	366	No target	+10%	n/a
Third-party oil and gas sales (kboe/d)[29]	2036	2016	No target	-1%	n/a

Source: Company data, Global Climate Insights estimates

[28] Converted from million tonnes to kb/d
[29] Includes oil and gas sales from 3rd party and state owned assets (SDFI), p.80 Annual report 2021

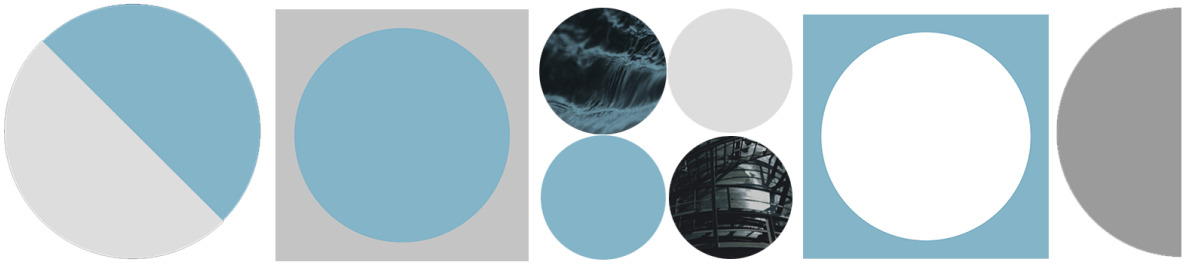
Appendix

Definitions

The key terms we use in this report are listed in the table below.

Term	Meaning
Financial	
Free cash flow	Operational cash flow less investing cash flow.
Organic capital expenditure	Investment in new equipment and long-term assets, as disclosed under capital expenditure in a company cash flow statement. Accounting treatment differs by company.
Organic and inorganic capital expenditure	Organic capital expenditure and investments in external entities including minority investments and acquisitions.
External definitions	
InfluenceMap organisation score	Performance Band (A+ to F) is a full measure of a company's climate policy engagement, accounting for both its own engagement and that of its industry associations. For companies, the 'Organisation Score' and 'Relationship Score' are combined to result in a total score that places the company in a Performance Band. (see InfluenceMap for more details)
Climate	
SOC vote	Say on Climate Vote is an annual, non-binding vote on a climate report issued by the company. Some companies covered in this report have used this style of mechanism but have not committed to an annual vote.
Total GHG emissions	In our analysis we use this term to refer to the total absolute greenhouse gas (GHG) emissions from products a company sells. We believe this provides a more holistic picture of the GHG emissions of a business, and is the best way for investors to understand how a company is tracking in its transition away from hydrocarbons.
Absolute GHG emissions	Absolute GHG emissions are the total amount of emissions being released into the atmosphere. . For climate change to slow down, an absolute emissions reduction target is needed. It is also the more effective measure of the climate impact of emissions reduction, in comparison to an intensity reduction.

Net GHG emissions	Net emissions are a company's emissions footprint after accounting for post-emissions compensation. These are not necessarily 'negative emissions', as envisaged by the IPCC illustrative mitigation scenarios. Corporations should aim to thrive in a zero emissions economy, rather than 'net zero' in any particular year.
Post-emission compensation technology	Carbon offsets and carbon capture and storage (CCUS) are both post-emission compensation measures. We consider both in our assessment of company targets but separately from the measures that reduce emissions from being released in the first instance.
Net Carbon Intensity	A metric used by Shell to track emissions from its energy products, it is the average amount of greenhouse gas emissions produced for each unit of energy that Shell sells. It is net as it accounts for post-emissions compensation including CCUS and carbon offsets.
Metrics and denominations	
$	All financial values unless specified are denominated in US$
b	Billion
boe/d, boed	barrels of oil equivalent per day
gCO_2/MJ	Grams CO2 per million joules
GW	Gigawatt
kb	Thousand barrels
kboe	Thousand barrels of oil equivalent
m	Million
Mboe	Million barrels of oil equivalent
Mt	Million tonnes
TWh	Terawatt hours



Disclaimer

This document has been prepared by the Australasian Centre for Corporate Responsibility Inc. (ARBN: 648 883 194) ("**ACCR**").
www.globalclimateinsights.org

Copyright
Any and all of the content presented in this report is, unless explicitly stated otherwise, subject to a copyright held by ACCR. No reproduction is permitted without the prior written permission of ACCR.

No distribution where licence would be required
This document is for distribution only as may be permitted by law. It is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or would subject ACCR to any registration or licensing requirement within such jurisdiction.

Nature of information
None of ACCR, its officers, agents, representatives or and employees holds an Australian Financial Services Licence (AFSL), and none of them purports to give advice or operate in any way in contravention of the relevant financial services laws. ACCR, its officers, agents, representatives and employees exclude liability whatsoever in negligence or otherwise, for any loss or damage relating to this document or its publications to the full extent permitted by law.

This document has been prepared as information or education only without consideration of any user's specific investment objectives, personal financial situation or needs. It is not professional advice or recommendations (including financial, legal or other professional advice); it is not an advertisement nor is it a solicitation or an offer to buy or sell any financial instruments or to participate in any particular trading strategy. Because of this, no reader should rely upon the information and/or recommendations contained in this site. Users should, before acting on any information contained herein, consider the appropriateness of the information, having regard to their objectives, financial situation and needs. It is your responsibility to obtain appropriate advice suitable to your particular circumstances from a qualified professional before acting or omitting to act based on any information obtained on or through the report. By receiving this document, the recipient acknowledges and agrees with the intended purpose described above and further disclaims any expectation or belief that the information constitutes investment advice to the recipient or otherwise purports to meet the investment objectives of the recipient.

Information not complete or accurate

The information contained in this report has been prepared based on material gathered through a detailed industry analysis and other sources and although the findings in this report are based on a qualitative study no warranty is made

as to completeness, accuracy or reliability of fact in relation to the statements and representations made by or the information and documentation provided by parties consulted as part of the process. References in this report to ”GCI estimates” or “Global Climate Insights estimates” are to estimates prepared by ACCR based on information available to it and what ACCR considers to be reasonable methodology and assumptions, and no warranty is made as to its completeness, accuracy or reliability.

The sources of the information provided are indicated in the report and ACCR has not sought to independently verify these sources unless it has stated that it has done so. ACCR is not under any obligation in any circumstance to update this report in either oral or written form for events occurring after the report has been issued. The report is intended to provide an overview of the current state of the relevant industry or practice.

This report focuses on climate related matters and does not purport to consider other or all relevant environmental, social and governance issues.

Any prices stated in this document are for information purposes only and do not represent valuations for individual securities or other financial instruments. ACCR does not represent that any transaction can or could have been effected at those prices, and any prices do not necessarily reflect ACCR’s internal books and records or theoretical model-based valuations and may be based on certain assumptions. Different assumptions by ACCR or any other source may yield substantially different results.

Links to Other Websites

This document may contain links to other websites not owned or controlled by the ACCR and ACCR assumes no responsibility for the content or general practices of any of these third party sites and/or services whose terms and conditions and privacy policy should be read should you access a site as a result of following a link cited in this report.